

Bird & Bird

Electric Vehicle Charging

a Guide to UK Legislation



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For electric vehicles (**EVs**) in the UK to become a viable alternative to fossil fuelled cars, a nationwide network of charge points is essential, allowing drivers to charge at home, at destinations and on their journey with ease.


In 2021, the Society of Motor Manufacturers and Traders predicted that the UK needed 2.3 million public charge points by 2030 to meet anticipated demand. This translates to the installation of 700 charging points every single day until the end of the decade. In 2024, the UK Government's target for the installation of public EV charging stations was set at 300,000 by 2030. To meet those targets, charging networks have been rolled out at an ever increasing-rate year on year, now with fast and super fast hubs catering for the demands of users of public networks. According to Zapmap, the number of public charge points in the UK has grown from 20,964 at the end of 2020 to 53,865 at the end of 2023 and more than 70,000 by September 2024¹.

Since 2019, when the UK Government became the first major economy in the world to pass laws to end its contribution to global warming by 2050, numerous laws have been introduced to support these ambitious targets. These include regulations to ensure that the widespread integration of EV charging infrastructure is safe, convenient and fair. In this guide, we provide an overview of these regulations and explain how they might impact different stakeholders in the EV charging sector.

At Bird & Bird, we have a wealth of expertise in the EV sector, advising a diverse range of players in this exciting space. Our dedicated focus on the sector gives us a strong understanding of not only the law as it applies to EV charging, but also the dynamics, pressures and opportunities facing the market.

1. <https://www.zap-map.com/ev-stats/how-many-charging-points>



An aerial photograph of a red car driving on a two-lane road. The road is bordered by a rocky shoreline and a large body of blue water on the left, and a dense green forest on the right. The text 'The Public Charge Point Regulations 2023' is overlaid on the left side of the image.

The Public Charge Point *Regulations 2023*

What are the Public Charge Point Regulations 2023?

The **Public Charge Point Regulations 2023 (PCP Regs)**, which came into force in November 2023, were introduced to improve consumer experience when using public charge points in the UK, focusing on key areas to ensure:

- consumers can easily locate the right public charge point to fit their needs;
- ease of payment across public charge points;
- consumers can be confident that public charge points will be in good working order; and
- consumers are able to compare prices across multiple public charge point networks.

Who do the Public Charge Point Regulations 2023 apply to?

The PCP Regs place obligations on Charge Point Operators (**CPOs**), who are operators of public charge points (whether they are the owner of the charge points or not).

Charge points which are considered public under the PCP Regs include charge points located:

- in residential car parks but not designated to individual households;
- in privately-owned car parks which the public has access to, such as supermarkets and hotel car parks; or
- on public roads for public use.

The Government **guidance** helpfully sets out further information on this distinction as to whether a charge point is public or private under the PCP Regs.

What are the requirements of the Public Charge Point Regulations 2023?

The “Legal Obligations” section of the Government’s guidance provides a succinct list of the requirements imposed by the PCP Regs on **public** charge points as follows:



Contactless payment: effective 24 November 2024, existing ‘rapid’ charge points and new charge points over 8kW must accept contactless payments.



Payment roaming (the ability to pay to charge an EV across multiple charge point networks using a single app or Radio-Frequency Identification card): public charge points must enable consumers to pay through at least one third party payment roaming provider by November 2025.



Open data: mandates the recording and maintenance of accurate data records and sharing of data to government bodies, Distribution Network Operators, Transmission Owners and Electricity Systems Operators upon request by November 2024.



Reliability: imposes a 99% reliability requirement for rapid public charge points, with annual reporting to the Department for Transport from November 2024.



Pricing transparency: requires the introduction of a standard pricing metric of pence per kilowatt hour which must not increase once charging has started. This requirement has applied to all charge point operators since 24 November 2023.



Ease of payment: from November 2024, public charge point operators must ensure that payment methods are not brand-specific and do not require mobile or internet signal. This requirement applies to new sites of 8kW and above and must be retrofitted to existing public rapid charge points.



Helpline Support: from 24 November 2024, CPOs will be required to provide a free helpline, staffed 24/7. The helpline must offer consumers real-time assistance and CPOs will have to report helpline metrics (e.g. the nature of complaints and resolutions reached) on a quarterly basis to the Department for Transport.

It is hoped that these new requirements will boost consumer confidence and ensure a *consistent experience*. They will also address common challenges currently experienced by consumers across the public charging network, including unreliable charge points, a convoluted variety of payment metrics and *confusing payment methods*.

Who enforces the Public Charge Point Regulations 2023?

The Office for Product Safety and Standards (**OPSS**) is part of the Department for Business and Trade and acts on behalf of the Secretary of State to enforce the PCP Regs. In the event of non-compliance, the OPSS can serve a compliance notice requiring action to be taken to remedy the breach. A compliance notice may, in addition, prohibit the recipient of the notice from installing further public charge points until action has been taken to remedy a breach or breaches set out in the notice. Operators of charge points which breach the PCP Regs can be liable for up to a £10,000 fine for each breach, per charge point (or per network for a breach of the reliability standards).



The Electric Vehicles *(Smart Charge Points)* Regulations 2021



What are the Electric Vehicles (Smart Charge Points) Regulations 2021?

The Electric Vehicles (Smart Charge Points) Regulations 2021 (Smart Charge Point Regs) came into force in June 2022. **Their primary purpose is to:**

- introduce regulations which require domestic and workplace EV charge points to include smart functionality; and
- mandate that these charge points meet specified cybersecurity requirements and operate in certain ways to protect the stability of the electricity grid and to protect consumers.

Smart functionality or smart charging are umbrella terms for a number of features. The most essential of these features is connectivity, or the ability of a charger to establish a wireless connection, typically via Bluetooth or the internet. **This allows:**

- consumers to control charging via their smartphones;
- the connection of charge points to a home's energy management system; and
- the gathering of data on charging behaviour.

Other features of smart charge points include dynamic load balancing, renewable energy integration and the incorporation of charging schedules.

Who do the Electric Vehicles (Smart Charge Points) Regulations 2021 apply to?

The Smart Charge Point Regs apply to any person or business selling, offering or advertising charge points intended for use by vans or cars in a domestic or workplace setting. They do not apply to public charging infrastructure or rapid charge points.

What are the requirements of the Electric Vehicles (Smart Charge Points) Regulations 2021?

The Smart Charge Point Regs are intended to achieve their aims by mandating that in-scope charge points:

- have the technical capability to smart charge;
- do not introduce barriers to switching energy suppliers (e.g. the loss of smart functionality when its owner changes supplier);
- remain operable if network connection is lost;
- prevent users carrying out certain functions such as a 'consumer override' of certain default functions where these may result in a safety risk;
- collect energy consumption data and make this data accessible to consumers;

- do not, by default, charge vehicles at peak times – though the Smart Charge Point Regs do provide that consumers must have the ability to change or remove this setting after first use;
- have a randomised delay function to prevent all in-scope charge points from turning on or off simultaneously, which could cause significant grid instability; and
- employ good 'cyber hygiene' by using unique passwords, storing sensitive information securely, and encrypting communications, in line with the best practices set out in the Digital, Culture, Media and **Sport's Code of Practice for Consumer 'Internet of Things' Security** and the European cybersecurity standard, **ETSI EN 303 645**.

It is hoped that the Smart Charge Point Regs will help the UK's electricity system cope with the increased demand placed on it by EV charging. Smart charging is seen as the simplest way of mitigating the impacts of increased electricity demand on the grid while enabling consumers to take part in the flexible energy system.

Who enforces the Electric Vehicles (Smart Charge Points) Regulations 2021?

The Smart Charge Point Regs empower the OPSS to issue compliance notices or civil penalties up to a maximum of £10,000 in respect of each non-compliant charge point sold, and a maximum of £250,000 for obstructing the enforcement authority.

The Alternative Fuels Infrastructure *Regulations 2017*

What are the Alternative Fuels Infrastructure Regulations 2017?

The **Alternative Fuels Infrastructure Regulations 2017 (AFIR)** were implemented to ensure that publicly accessible alternative fuel infrastructure (electricity and hydrogen) for road transport complies with technical specification and customer experience standards to enable a minimum level of access and information for consumers.

Who do the Alternative Fuels Infrastructure Regulations 2017 apply to?

AFIR applies directly to operators of electric and hydrogen recharging infrastructure, whether as owner or on behalf of another party. Equipment manufacturers of recharging installations will also be impacted as they will have to ensure that their products meet the standards if they are to maintain sales.

What are the requirements of the Alternative Fuels Infrastructure Regulations 2017?

AFIR requires EV charging infrastructure operators to ensure that:

- users have ad-hoc access to their infrastructure (i.e. users must be able to charge their vehicles without requiring a pre-existing contract or membership);
- their infrastructure has intelligent metering capabilities and provides data to customers; and
- they provide data, where available, on the location of the charging points for which they are responsible.

Who enforces the Alternative Fuels Infrastructure Regulations 2017?

The body responsible for enforcing AFIR is the OPSS, which is enabled under the AFIR to gather evidence related to potential breaches and to impose civil penalties for breaches of the requirements. AFIR sets maximum civil penalties ranging from £500 to £4,000 per charge point for breach of the regulations. Please find the full list of civil penalties at table 22 of this [guidance](#) document.

An aerial photograph of a multi-lane highway bridge spanning a body of water. The water is a vibrant teal color. The bridge has several lanes in each direction, separated by a central median and side barriers. Various vehicles are visible on the bridge, including a white truck, a red car, a blue car, a yellow bus, and a green car. The text 'The Buildings Regulations 2010 (as amended)' is overlaid on the left side of the image in white and yellow fonts.

The Buildings *Regulations 2010* (as amended)

How do the Building Regulations impact EV charging?

In 2021, a new Part S was added to **the Building Regulations 2010 (as amended) (Building Regs)** to include provisions requiring the installation of EV charging stations in England. At present, the Building Regs do not prescribe any EV charging requirements for Wales and Northern Ireland. The Scottish Government is working on its own EV charging update to the Scottish equivalent of the Building Regs.

The Building Regs apply to installers, architects, property developers, property managers, property owners, and contractors. In practice, the building owner and the organisations designing and carrying out the building works will be accountable for adhering to the Building Regs.

Under the Building Regs:

- all new non-residential buildings with 10 or more parking spaces must include (i) a minimum of one charge point and (ii) cable routes for 1 in every 5 spaces;
- residential buildings undergoing major renovation, and which will have 10 or more parking spaces, must include (i) at least one charge point per residential unit with associated parking and (ii) cable routes in all parking spaces without charge points;
- all non-residential buildings undergoing major renovation, and which will have 10 or more parking spaces, must include (i) a minimum of one charge point and (ii) cable routes for 1 in every 5 spaces; and
- all new homes with parking, including new homes created from a change of use, must have an EV charge point.

The Building Regs also set minimum standards for EV charge points – regulation 44J requires that all charge points:

- are capable of providing a reasonable power output for each parking space for which it is intended to be used;
- run on a dedicated circuit; and
- are compatible with all vehicles which may require access to them.

The work of installing EV charge points is ‘notifiable’ under the Building Regs. This means electrical work connected to the installation will need to be approved by either (i) the local building control body or (ii) a registered competent person (as defined in the Building Regs) who will then need to produce a Compliance Certificate.

In case of non-compliance with the Building Regs, local authorities may take enforcement action. Enforcement action can include requiring that works are pulled down or removed. Contraventions of the Building Regs can also result in prosecution from local authorities in the magistrates’ court where an unlimited fine may be imposed.

An aerial photograph of a long, multi-lane bridge spanning a large body of water. The bridge has a concrete support pillar visible. A single car is driving on the bridge. The water is a deep blue, and the sky is clear.

What can we expect
for the future of
*Electric Vehicle
charging legislation?*

The **Automated and Electric Vehicles Act 2018 (AEVA)** is the enabling legislation under which regulations relating to electric vehicles (and automated vehicles) are made law. The powers laid out within the AEVA empower the Government to meet the following aims:

- improve the consumer experience of charging infrastructure;
- ensure provision of EV charging infrastructure at key strategic locations like motorway service areas (**MSAs**); and
- require that charge points have ‘smart’ capability.

More specifically, the Secretary of State has powers to make regulations to:

- address issues of interoperability by promoting uniform methods of accessing public charging and refuelling points and by specifying minimum standards of design and functionality for charging point manufacturers;
- require MSAs and large fuel retailers to provide public and accessible charging points;
- deal with the lack of consistency, both in form and content, of publicly available information (e.g. real time data) on charging points;
- ensure that certain persons, such as the electricity system operator and electricity network operators, are provided with charging point data;
- create an enforcement regime, which can include civil penalties;
- prevent charge points from being sold or installed in the UK if they do not comply with the “smart” functionality requirements; and
- provide carve outs and exceptions to the above requirements to ensure that they are not unjust or overly onerous.

Future secondary legislation (Regulations) will be enacted under the AEVA so it will be important to monitor progress. Annual progress reports published by the Government offer a useful source of information.

[See the latest report here.](#)

An aerial photograph showing a vibrant turquoise lake on the left, a winding asphalt road on the right, and a dense forest of evergreen trees. The text is overlaid on the lake area.

How can Bird & Bird *help you?*

The scope of the Government's plans for meeting its CO2 emissions targets through a zero-emission vehicle mandate are undoubtedly ambitious, but they are in line with plans elsewhere in the world. Understanding and navigating the EV charging legislative landscape can be complex and challenging. Bird & Bird can draw on a broad range of sector and international experience to guide you through this rapidly evolving industry and can provide you with tailored advice and strategic solutions.

The pressure to improve the grid, and for companies to seek solutions from new technologies, including battery storage and EV charging management software, is already leading to significant investment, collaboration, and M&A opportunities, with which Bird & Bird is well acquainted.

Our team of experts advise across a number of cutting edge and disruptive areas of the energy sector globally, including energy storage, energy digitalisation and EV charging. This energy sector experience is complemented by the deep expertise of our international automotive group, who advise clients on a wide range of issues and challenges, including exciting changes driven by disruptive technology, such as connectivity, autonomous driving and e-mobility.

How we differ: *connecting you to new opportunities*

Real estate developers

We regularly work with major housing and commercial real estate developers and operators, including retailers, hotels, service stations and more. Our advice to them on the development of their projects and the energy infrastructure required means we know the right people for you to be connected with early on in the process of procuring EV charging solutions. We regularly work alongside these companies and can leverage those relationships to your benefit.

Local authorities

We regularly advise local authorities and are involved in a number of projects focused on rolling out EV charging infrastructure. We can leverage our strong relationships with them to make introductions and ensure you are aware of opportunities to provide your solutions to the public sector.

DNOs and IDNOs

We regularly work with DNOs and IDNOs on grid connection and electrification projects. We are well positioned to support you with grid connection issues and to partner with them on projects where EV charging forms part of the electrification of particular sites and projects.

Grant funding

We can advise you on the financial incentives granted to companies advancing the clean energy transition at both national and EU level. We can assist with grant applications as well as during the execution of your obligations under grant agreements. We can also support you on subsidy control assessments, including advising on appropriate subsidy control solutions.

Bid support

We know what buyers want and can use our experience of designing and managing procurements and assessing thousands of bids to make sure your bids are where they need to be. Our team of lawyers are work winning experts who can offer unique insight from both sides of the bid process to help you win more.

International market entry

With a global team of over 500 lawyers who have spent their careers guiding many of the leading blue chip energy, automotive and tech multinationals, as well as the next generation of game changing disrupters, we offer you deep experience on entry into new markets globally.

We advise on complex international projects in this sector and have supported charging infrastructure companies, energy utilities, EV manufacturers, OEMs, EV suppliers, battery producers, public transport companies, international investors and tech & electronics companies globally. As we have done with them, we can help you across international markets to support your continued growth.

Our coordinated teams work with you to deliver seamless cross-jurisdictional advice across multiple areas of law.

Get in contact to find out more about how we can help you



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Selected *Experience*

Moto Hospitality, the UK's largest motorway service area operator, are a long-standing client. We advise on all aspects of the management and expansion of their estate, together with bespoke planning matters such as section 278 and related highways agreements.

Advised **Charge+**, part of Singapore's Sunseap Group, in its new EV charging solutions comprising ultra-slim chargers, mobile apps and smart charging systems as it launches its plans to install 10,000 charging points across Singapore.

Our procurement team were lead subsidy control lawyers advising **OZEV** on the Rapid Charging Fund.

Advising **ABB** on their investment into Switch EV, a deep-tech start-up focused on the development of a digitally integrated EV charging ecosystem.

Provided a **smart charging platform developer** with strategic advice (API handling, IP and FTO), as well as contractual work regarding its ground-breaking software platform allowing the integration of energy grid, smart charging and API functions for EVs, energy storage and connected home devices.

Provided strategic procurement advice and supported **Smart DCC** and its procurement consultants to develop the business case and procurement documents, and provided support on the running of the procurements for the selection of its future Data Service Provider.

Advised **BE Power SpA**, an Italian company operating electric vehicles charging power stations, including advising PE Funds Aretex and THCP on the sale of 51% of BE Power SpA to an acquisition vehicle of the PE Fund Zouk.

Advised **e-mobi** on the roll-out of EV charging infrastructure, including the construction and operation of charging points and the development of a uniform payment platform.

Advised a **Specialist Green Investor** on the contractual structure for its Europe-wide charging as a service solution including the creation of standardised documents and strategic advice on key EV charging regulatory considerations in priority countries.

Advising **Major German Automobile Manufacturer** on a major joint venture between various automobile manufacturers in relation to the introduction of a uniform petrol station structure for electrically powered vehicles.

Currently advising on a joint venture of national property developers formed to collaborate with a market leader for public rapid and ultra-fast charging on the identification, acquisition and development of prime locations for state-of-the-art EV charging.

Bird & Bird

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