



Department
for Transport

Automated and Electric Vehicles Act 2018 Regulatory Report

July 2023 – December 2024

Department for Transport

Automated and Electric Vehicles Act 2018 Regulatory Report

Presented to Parliament pursuant to Part 2 section 19 (2) of the
Automated and Electric Vehicle Act 2018

Ordered by the House of Commons to be printed on 11 March 2025



© Crown copyright 2025

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/3/.

Where we have identified any third party copyright information you will need to obtain our permission from the copyright holders concerned.

This publication is also available at <https://www.gov.uk/official-documents>

Any enquiries regarding this publication should be sent to us at www.gov.uk/government/organisations/department-for-transport

ISBN 978-1-5286-5505-7

E03310120 03/25

Printed on paper containing 40% recycled fibre content minimum

Printed in the UK by HH Associates Ltd. on behalf of the Controller of His Majesty's Stationery Office

Contents

Executive summary	6
Introduction	7
2. Work undertaken	9
Section 10: Public charging or refuelling points: access, standards and connection	9
Section 11: Large fuel retailers etc: provision of public charging or refuelling points	10
Section 12: Duty to consider making regulations under section 11(1)(a) on request by elected mayor	10
Section 13: Information for users of public charging or refuelling points	10
Section 14: Transmission of data relating to chargepoints	11
Section 15: Smart chargepoints	11
3. Next steps	13
Consumer Experience	13
Smart Charging	13

Executive summary

The transition to zero emission vehicles will help us meet our climate change obligations. It will improve air quality in our towns and cities and support economic growth. It will put us at the forefront of the electric vehicle revolution.

The Automated and Electric Vehicle Act 2018 (“the Act”) supports the deployment of world class electric vehicle charging infrastructure right across in the UK. The powers laid out within the Act allow Government to regulate to improve the consumer experience of charging infrastructure, to ensure provision of chargepoints at key strategic locations like motorway service areas, and to require that chargepoints have ‘smart’ capability.

The Act contains a provision requiring the Secretary of State to produce a report for each reporting period outlining the impact and effectiveness of regulations made under this part of the Act and the need for subsequent regulations to be made in future. This report covers the reporting period from July 2023 to December 2024.

The report provides further detail on the following regulations that have been made under the Act:

- The Public Charge Point Regulations 2023, which aim to improve the consumer experience at public chargepoints. These regulations were made under Sections 10, 13 and 14 of the Act.
- The Electric Vehicles (Smart Charge Points) Regulations 2021, which require chargepoints to have “smart” capability. These regulations were made under Section 15 of the Act.

In addition, the Act laid the first foundations for the safe deployment of self-driving vehicles on British roads. By clarifying how insurance liabilities would apply to these vehicles, the Act began the process of updating and preparing our roads legislation for an automated future. We have now taken another significant step forward with the Automated Vehicles Act 2024. Based on a four-year review by the Law Commission of England and Wales and the Scottish Law Commission, this legislation established a comprehensive framework for regulating self-driving vehicles on public roads. This includes mechanisms to set an appropriate safety standard, to assess and regulate vehicles and the companies that take responsibility for them, and to investigate incidents.

Introduction

1.1 The Automated and Electric Vehicles Act 2018 has two parts:

Part 1 Automated vehicles: liability of insurers etc:

1.2 This part of the Act sets out provisions to allow innovation and ensure future self-driving (automated) technology is invented, designed, and operated safely in the UK. These are intended to put the UK at the forefront of automated vehicle ownership and use and maintain our position as one of the best places to research and develop modern transport technologies.

1.3 Part 1 of the Act applies only when a list of automated vehicles has been published by the Secretary of State. After this point, a report for part 1 must be laid before parliament no later than two years after the list's publication. Such a list has not been published to date.

Part 2 Electric vehicles: charging:

1.4 This part of the Act provides Government with new powers to improve the consumer experience at public chargepoints, increase provision of electric vehicle charging infrastructure at key locations, and ensure that chargepoints have the capability to benefit the energy system. This will help to ensure that we have a charging network which is easy to access and ready to support the mass adoption of electric vehicles.

1.5 This report will cover work undertaken relevant to part 2.

1.6 The Automated and Electric Vehicles Act 2018 gave the Secretary of State the power, through secondary legislation, to:

1.7 **Improve driver experience of electric vehicle infrastructure**, by ensuring interoperability between networks, consistent technical standards, and the provision of open data on infrastructure location and availability of public chargepoints.

1.8 **Prohibit the sale of chargepoints in the UK unless they meet certain requirements.** This includes technical specifications to mandate 'smart charging', which helps enable consumers to charge their cars at different times of day, such as when renewable electricity generation is high or demand for electricity is low. These technical specifications are: to receive and process information; to react to this information; to transmit information; to monitor and record energy consumption; to comply with security regulations; to achieve energy efficiency and to be accessed remotely.

1.9 **Help overcome 'range anxiety' and facilitate longer journeys**, by requiring provision of electric vehicle infrastructure at motorway service areas and large fuel retailers and a duty to consider making regulations upon request by an elected mayor.

1.10 **Mandate that domestic and workplace chargepoints have 'smart functionality' and meet certain device-level requirements**, to support the transition to a smart

and flexible energy system by managing the additional electricity demand from electric vehicles.

2. Work undertaken

Section 10: Public charging or refuelling points: access, standards and connection

- 2.1 The Public Charge Point Regulations came into force on 24 November 2023. These regulations focused on improving the consumer experience at public chargepoints.
- 2.2 In the Public Charge Point Regulations (PCPR), we have made regulations relating to section 10:
- 2.3 **Making it easy to pay** - Regulation 5 of the PCPR means that consumers can charge their vehicle and pay with ease, as they would for any other service. It has been mandated that contactless payment will be made available at newly installed chargepoint sites (8kW and above) and at existing and new rapid sites (50kW and above) within one year of the regulations coming into force. Contactless payment must enable payment by physical contactless bank card but may also offer Apple/Google Pay in addition. Alongside this, consumers must be able to pay without entering their login details. This requirement came into force in November 2024.
- 2.4 **Roaming** – Regulation 6 of the PCPR mandates that Chargepoint Operators must offer roaming at all their public chargepoints through at least one third party roaming provider, allowing consumers to access and pay across multiple chargepoint networks using a single app or RFID (radio frequency identity) card. Fleet managers will therefore be able to easily aggregate bills from electric vehicle charging. Enforcement of this is to come into effect 24 months after the legislation came into force, in November 2025. Ahead of this, chargepoint operators must have submitted an initial report to the enforcement body by December 2023 on their existing payment roaming providers, as well as subsequent reports whenever their roaming providers change, within 28 days of the change.
- 2.5 **Ensuring a reliable charging network** – Electric vehicle consumers should feel confident that the UK charging infrastructure is reliable and easy to use. Regulation 7 of the PCPR mandates a 99% reliable charging requirement across each chargepoint operator's rapid network of chargepoints of 50kW and above, which will be measured as an annual average. This will include key chargepoints on the Strategic Road Network (SRN), trunk roads and motorway service areas. Regulation 8 of the PCPR mandates that chargepoint operators must submit an annual compliance report on

this measure. We have mandated that this annual report must state the number of chargepoints operated, the reliability of the chargepoint operator's network of rapid chargepoints (expressed as a percentage), and the reliability of each chargepoint, which must include the location and the time spent in each EVSE (Electric Vehicle Supply Equipment) object status over the year. These requirements came into force in November 2024. We will monitor the market for improvement of reliability over the next 24 months, with enforcement being pragmatic and taking into account issues where the chargepoint operators are not at fault.

Section 11: Large fuel retailers etc: provision of public charging or refuelling points

- 2.6 Section 11 of the Automated and Electric Vehicles Act 2018 was commenced in May 2022. This allows Government to begin the process of laying secondary legislation to mandate provision of chargepoints at motorway service areas and large fuel retailers.
- 2.7 In March 2020, the previous Government published a vision for the future of the charging network in England, which included ambitions for the number of ultra-rapid (150kW+) chargepoints at motorway service areas. The Government is supporting motorway service area operators and the private sector to deliver ultra-rapid, open access chargepoints in England (open access chargepoints can be used by any plug-in vehicle). The Government will focus its support where it is needed and only intervene where it is not commercially viable for the private sector. The private sector has made great progress installing chargepoints and there are already more than 980¹ open access rapid and ultra-rapid chargepoints at motorway service areas across England as of October 2024.
- 2.8 Any future secondary legislation to mandate provision of chargepoints at key sites would be subject to consultation.

Section 12: Duty to consider making regulations under section 11(1)(a) on request by elected mayor

- 2.9 Section 12 requires the Secretary of State to consider making regulations imposing requirements on large fuel retailers in relation to a relevant area if the mayor for that area makes a request and certain conditions are met. One such condition is that regulations have been made under section 11(3) in relation to the meaning of 'large fuel retailer'. At present, no such regulations have been made, therefore section 12 has not been commenced to date.

Section 13: Information for users of public charging or refuelling points

- 2.10 The Public Charge Point Regulations relating to section 13 are as follows:

¹ Motorway service area operators self-reported.

- 2.11 To improve pricing transparency, regulation 11 of the PCPR mandates that the total price must be clearly displayed in pence per kilowatt hour, and must not increase once charging has commenced. This requirement came into force in November 2023.
- 2.12 **Opening up chargepoint data.** All drivers should be able to locate available and working chargepoints easily when they need to charge their vehicle. Regulation 10 of the PCPR therefore mandates that chargepoint operators make data about each of their public chargepoints publicly available, including whether it is working or in use. We have mandated that chargepoint operators must open their data in accordance with the data standard and keep their data accurate and up to date, within one year of the regulations coming into force.
- 2.13 **Helpline provision.** To improve the consumer experience across the public charging network, regulation 9 of the PCPR mandates that all charging networks for public electric vehicle chargepoints must have a free 24-hour staffed helpline to support consumers when they experience an issue trying to charge their electric vehicle.
- 2.14 These requirements on chargepoint data and helpline provision came into force in November 2024 and were therefore not in force during this reporting period.

Section 14: Transmission of data relating to chargepoints

- 2.15 The Public Charge Point Regulations (Regulation 10) require that from November 2024, chargepoint operators make available reference data and availability data as set out in the standard Open Charge Point Interface Protocol (OCPI) for each electric vehicle supply equipment. This data should be made available upon request in a machine-readable format. Chargepoint operators must also make data available to government bodies, distribution network operators, transmission owners and electricity system operators on request if required.

Section 15: Smart chargepoints

- 2.16 Electric vehicle smart charging involves shifting charging to a different time of day, such as overnight when there is lower demand on the electricity system, or to times of high renewable energy generation. This can help reduce the need for costly electricity network reinforcement to meet increased demand from electric vehicles, and offers benefits to consumers too, including savings on their energy bills.
- 2.17 The majority of the Electric Vehicles (Smart Charge Points) Regulations 2021 came into force from 30 June 2022, except for the new cyber security requirements which came into force on 30 December 2022. The regulations set out requirements for all private (domestic and workplace) electric vehicle chargepoints sold in Great Britain to have smart functionality and comply with minimum device-level standards, using powers under Section 15 of the Automated and Electric Vehicles Act 2018.
- 2.18 The Office for Product Safety and Standards (OPSS) are the regulatory body responsible for enforcing the requirements.

- 2.19 The Department for Energy Security and Net Zero has conducted an initial evaluation of these regulations which was published in December 2024. This evaluation found that broadly the regulations had been positively received by industry and consumers alike. From an industry perspective, the evaluation found that the regulations had enabled industry to deliver a range of smart charging products and solutions. It was reported that in Q1 of 2023, 90% of the charge point models available on the market contained all features required under the regulations, except for security features that had been implemented at a later date (December 2022).
- 2.20 Based on evaluation findings and bespoke industry engagement, government plans to consult in early 2025 on small technical amendments to refine the regulations

3. Next steps

Consumer Experience

- 3.1 The Public Charge Point Regulations 2023 came into force 24 November 2023. The pricing transparency requirement came into effect at the same time as the Regulations. The contactless, reliability, helpline and open data requirements came into effect in November 2024. Finally, the roaming requirement will come into effect in November 2025. The Government continues to engage with industry bodies to refine guidance and maximise compliance with the regulations.

Smart Charging

- 3.2 The Department for Energy Security and Net Zero will continue to monitor and evaluate the impact of the Electric Vehicles (Smart Charge Points) Regulations as the market evolves. A process evaluation of the Regulations was published in December 2024, which set out how industry and consumers had responded to the regulations. Interim impact evaluations findings are expected by 2025, and the final impact evaluation by 2027.
- 3.3 The Department for Energy Security and Net Zero has used the findings from this report to prepare a series of minor and technical amendments to the Electric Vehicles (Smart Charge Points) Regulations and will be consulting on these as part of a wider Energy Smart Appliances consultation, scheduled to be published in Quarter 1 of 2025.

E03310120

ISBN 978-1-5286-5505-7