



Automated and Electric Vehicles Bill HL Bill 82 of 2017–19

Summary

The Automated and Electric Vehicles Bill is a government bill that proposes a regulatory framework in preparation for an expected increase in the presence of automated and electric vehicles operating in the UK, following swift technological developments in the automotive sector. The regulatory changes proposed by the Bill would extend to two main areas: insurance cover for automated vehicles and charging infrastructure for electric vehicles. The Bill resurrects changes first proposed in the Government's Vehicle Technology and Aviation Bill introduced in the 2016–17 session, which fell at the end of the that session due to the calling of the 2017 general election.

In line with the Bill's objectives, its 20 clauses are arranged in three parts with one schedule. Part 1, comprising clauses 1 to 7, focuses on extending the legal framework for compulsory motor insurance to include autonomous vehicles. Part 2, comprising clauses 8 to 16, focuses on widening the availability of charging infrastructure for electric vehicles and on making such infrastructure accessible. Part 3, comprising clauses 17 to 20, concerns miscellaneous and general matters, including commencement and extent.

The Bill was introduced in the House of Commons on 18 October 2017 and received its second reading on 23 October 2017. A public bill committee took evidence from witnesses and examined the Bill over the course of seven sittings, before the Bill completed its report stage and third reading on 29 January 2018. The Bill received cross-party support during its passage, though opposition parties expressed reservations about the approach taken to certain measures. One new clause—relating to the transmission of data—was added as a result of a government amendment during the Bill's report stage, but otherwise the Bill was not substantially amended during its consideration by MPs.

The Bill was introduced in the House of Lords on 30 January 2018 by Baroness Sugg, Parliamentary Under Secretary at the Department for Transport, and is scheduled to receive its second reading on 20 February 2018.

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I. Background

I.1 Vehicle Technology and Aviation Bill

The Automated and Electric Vehicles Bill resurrects legislative proposals first articulated in the Queen’s Speech delivered at the opening of the 2016–17 session, in which the then Government stated that ministers would seek to “ensure the United Kingdom is at the forefront of technology for new forms of transport, including autonomous and electric vehicles”.¹ Briefing notes published by the Cabinet Office at the time stated that a proposed Modern Transport Bill would provide a mechanism for “appropriate insurance” to be available to support the use of autonomous and driverless vehicles. In addition, the notes stated that the Government’s legislative proposals would encourage new technology to deliver “better, safer journeys, while keeping Britain at the cutting edge of international transport technology”.²

In February 2017, the Government published the trailed measures as part of the Vehicle Technology and Aviation Bill. Parts 1 and 2 of the Bill dealt with insurance for automated vehicles and charging infrastructure for electric vehicles, respectively. The Bill completed its committee stage in the House of Commons, but fell at the dissolution of Parliament ahead of the general election held in June 2017. The provisions in the Automated and Electric Vehicles Bill are substantively the same as the clauses included in Parts 1 and 2 of this earlier Bill.³ However, the Government has since indicated that changes have been made to the wording of the provisions following the previous scrutiny by MPs.⁴

Other proposals in the Vehicle Technology and Aviation Bill have been taken forward in other legislation—notably the Air Travel Organisers’ Licensing Act 2017, which received royal assent in November 2017, and the Laser Misuse (Vehicles) Bill currently before Parliament.⁵

I.2 Conservative Party Manifesto and Queen’s Speech 2017

In respect of automated and electric vehicles, the Conservative Party manifesto published ahead of the June 2017 general election contended that the UK was “leading the world in preparing for autonomous vehicles” and outlined an ambition for the country to be in the front rank in electric vehicle technology and use.⁶ The manifesto stated that a Conservative government would want almost every car and van to be zero-emission by

¹ [HL Hansard, 18 May 2016, col 1.](#)

² Cabinet Office, [Queen’s Speech 2016: Background Briefing Notes](#), 18 May 2016, p 17.

³ UK Parliament website, ‘[Vehicle Technology and Aviation Bill 2016–17](#)’, accessed 5 February 2018. For further information on the provisions in this Bill, see: House of Commons Library, [Vehicle Technology and Aviation Bill 2016–17](#), 2 March 2017.

⁴ [HC Hansard, 23 October 2017, col 73.](#)

⁵ For further information, see: House of Lords Library, [Air Travel Organisers’ Licensing Bill](#), 25 July 2017; and [Laser Misuse \(Vehicles\) Bill](#), 21 December 2017.

⁶ Conservative Party, [Conservative Party Manifesto 2017](#), May 2017, pp 24 and 81.

2050, and suggested that increasing electric vehicle use would be a means toward achieving this aim.

Following these commitments, the Government included an undertaking in the most recent Queen’s Speech to introduce legislation to ensure the UK remained a “world leader in new industries, including electric cars”.⁷ In the accompanying briefing notes, the Government stated that the overall purpose of its proposed Automated and Electric Vehicles Bill would be to encourage the development of automated driving technology and improve charging and hydrogen refuelling infrastructure in the UK.⁸ The Bill would aim to achieve this by:

- Extending compulsory motor vehicle insurance to cover the use of automated vehicles, to ensure that compensation claims continue to be paid quickly, fairly, and easily, in line with longstanding insurance practice.
- Allowing the Government to require the installation of charge points for electric vehicles at motorway service areas and large fuel retailers, and to require a set of common technical and operational standards. This will ensure that charge points are convenient to access and work seamlessly right across the UK.⁹

The briefing notes explained that provisions relating to automated vehicles would extend to England, Scotland and Wales. They added that provisions relating to electric charging infrastructure in part 2 of the Bill would also extend to England, Scotland and Wales, though the Government intended to seek a legislative consent motion from the Northern Ireland Assembly so that this part could extend to the whole of the UK.¹⁰

2. Overview

2.1 Part I: Liability of Insurers of Automated Vehicles

Overview of the Provisions

Part I of the Bill, comprising clauses 1 to 7, makes provision in relation to automated vehicles. In particular, the measures in this part would amend the current driver-centric legal framework for compulsory motor insurance, as set out in the Road Traffic Act 1988, so that it extended to automated vehicles.¹¹

⁷ [HL Hansard, 21 June 2017, col 5.](#)

⁸ Cabinet Office, [Queen’s Speech 2017: Background Briefing Notes](#), 21 June 2017, p 27.

⁹ *ibid.*

¹⁰ *ibid.*, pp 27–8.

¹¹ [Explanatory Notes](#), p 3.

The Government explained the reasoning behind the proposed changes as follows:

Automated vehicles will allow the driver to disengage from the driving task, handing full control and responsibility to the vehicle when the automated systems are active, without needing to intervene or monitor. This creates an issue for motor vehicle insurance. UK law requires the driver to be insured, so when the driver uses automated mode, gaps would emerge in the insurance framework, making it difficult and time consuming for victims to claim compensation. Third parties might not be covered without the proposed intervention, which is a market failure. With such vehicles expected to be on the road in five to ten years, government intervention is required to resolve this issue, to provide clarity to motorists and industry.¹²

The Government has stated that its primary policy objective in seeking to extend the current motor insurance framework to include autonomous vehicles is to ensure that any innocent victims of a collision involving an automated vehicle received compensation “quickly in line with long standing practice in UK insurance and in compliance with the [EU Motor Insurance Directive](#)”. According to the Government, the change would also: encourage the development and commercialisation of Connected and Automated Vehicle (CAV) technologies domestically, so that the UK could benefit from growth in a market estimated to be worth up to £50 billion by 2035; contribute towards enabling the sale and use of automated vehicles across the country; and help realise the benefits such vehicles could “bring to safety, mobility, productivity and smoother journeys”.¹³

In support of the benefits CAV technologies could bring to passenger safety in particular, the Government has cited estimates that 85.9 percent of collisions causing injury in 2016 involved a degree of human error—the implication being that an increase in the number of automated vehicles on the UK’s roads would lead to fewer accidents. This view was shared by representatives from the insurance industry who gave evidence to the House of Commons Public Bill Committee examining the Bill.¹⁴

¹² Department for Transport, [Impact Assessment: Pathway to Driverless Cars—Insurance for Automated Vehicles](#), 7 October 2016, p 1.

¹³ Department for Transport, [Automated and Electric Vehicles Bill: Impact Assessment](#), 14 June 2017, p 3; and Department for Transport, Office for Low Emission Vehicles and Centre for Connected and Autonomous Vehicles, ‘[Boost for Electric and Driverless Car Industry as Government Drives Forward Green Transport Revolution](#)’, 18 October 2017. See also: Department for Transport, [Impact Assessment: Pathway to Driverless Cars—Insurance for Automated Vehicles](#), 7 October 2016, pp 5–6.

¹⁴ Department for Transport, Office for Low Emission Vehicles and Centre for Connected and Autonomous Vehicles, ‘[Boost for Electric and Driverless Car Industry as Government Drives Forward Green Transport Revolution](#)’, 18 October 2017; [Public Bill Committee, Automated and Electric Vehicles Bill, 31 October 2017, session 2017–19, 1st sitting](#); and [Public Bill Committee, Automated and Electric Vehicles Bill, 31 October 2017, session 2017–19, 2nd sitting](#).

During the latter stages of the Bill’s passage through the House of Commons, the Secretary of State for Transport, Chris Grayling, outlined his hope to see “fully self-driving cars, without a human operator, on UK roads by 2021”; an ambition he argued was “entirely realistic” given technological advances in the sector.¹⁵ The changes set out in the Bill, he contended, would “give people confidence that they can purchase [automated] vehicles and have the insurance cover they need”.¹⁶

Summary of the Clauses

Clause 1 would require the Secretary of State to prepare, and keep up to date, a list of all motor vehicles that may be used on roads in Great Britain that are capable of “safely driving themselves”. The Government has stated that this mechanism would allow manufacturers, owners of vehicles and insurers to know whether their vehicle would be deemed to be automated for the purposes of this legislation.¹⁷

Clause 2 would place first instance liability on the insurer for an accident caused by an automated vehicle if the vehicle is insured. This would include cases of death or personal injury to the driver of the vehicle if the vehicle was driving itself and so that individual was a passenger.¹⁸ In short, any accidents involving an automated vehicle would follow the insurance route, as is currently the case for motor accidents, rather than involving the manufacturer of the vehicle.¹⁹

Clause 3 would limit insurer liability in cases where the injured party to some extent contributed to the cause of the accident.²⁰

Clause 4 would limit the liability of insurers in cases where the vehicle’s software had been altered in breach of the insurance policy or in cases where “safety-critical” updates had not been applied, subject to certain conditions.²¹

Clause 5 would permit an insurer involved in a claim to make a subsequent claim against the manufacturer of an automated vehicle if the vehicle was thought to have caused the accident, following resolution of the first instance liability process outlined in clause 2.²²

¹⁵ [HC Hansard, 29 January 2018, col 637.](#)

¹⁶ *ibid.*

¹⁷ [Explanatory Notes](#), p 4.

¹⁸ *ibid.*, p 5.

¹⁹ House of Commons Library, [Automated and Electric Vehicles Bill 2017–19](#), 28 November 2017, p 10. See also: Lexis Nexis, [Back to the Future: The Automated and Electric Vehicles Bill 2017](#), 20 October 2017, p 1.

²⁰ [Explanatory Notes](#), p 5.

²¹ *ibid.*

²² *ibid.*; and House of Commons Library, [Automated and Electric Vehicles Bill 2017–19](#), 28 November 2017, p 11.

Clause 6 would preserve, and seek to join up the new insurance arrangements with, the various forms of liability existing in other legislation, including the Fatal Accidents Act 1976 and the Damages (Scotland) Act 2011.²³

Clause 7 would define terms used in part I, including “automated vehicle”, “damage”, “insured person” and “insurer”.²⁴

Responses to the Provisions

At the time of the Bill’s publication, James Dalton, Director of General Insurance Policy at the Association of British Insurers (ABI), an industry body which includes more than 250 member companies, welcomed the approach taken by the Government in part I of the Bill. He stated:

Insurers wholeheartedly support the development of automated vehicles, as they have the potential to significantly reduce the large number of road accidents caused by driver error. We support the approach the Government has taken in the Bill, as this will give the industry time to prepare for the commercial rollout of fully automated driving technology.²⁵

At the same time, Ben Howarth, Senior Advisor for Motor and Liability at the ABI, issued a statement in which he echoed Mr Dalton’s support for the Bill. He stated that the Government’s “planned approach to insuring autonomous vehicles should keep the process as straightforward as possible for consumers, and is based on proposals made by the industry”.²⁶

The House of Commons Public Bill Committee that examined the Bill took evidence from a number of witnesses, including Mr Howarth and other representatives from the insurance industry in two sittings on 31 October 2017. During the first evidence session, the then Minister for Transport Legislation and Maritime, John Hayes, asked Mr Howarth whether the Bill had been welcomed by the insurance industry. Mr Howarth elaborated on his earlier comments in support of the insurance-related provisions in the Bill:

Yes, [the Bill] is very welcomed by the industry. I think it is very clear that the legislation and broadly the development of automated driving are something that insurers are genuinely enthusiastic about. In terms

²³ [Explanatory Notes](#), p 5; and House of Commons Library, [Automated and Electric Vehicles Bill 2017–19](#), 28 November 2017, p 11.

²⁴ [Explanatory Notes](#), p 6.

²⁵ Department for Transport, Office for Low Emission Vehicles and Centre for Connected and Autonomous Vehicles, ‘[Boost for Electric and Driverless Car Industry as Government Drives Forward Green Transport Revolution](#)’, 18 October 2017.

²⁶ Association of British Insurers, ‘[Automated and Electric Vehicles Bill is the Way Ahead Says the ABI](#)’, 18 October 2017.

of the work we do in the ABI, it is one of the areas where we get the most engagement and interest from our members.²⁷

In response to a question from Karl Turner, Labour’s Shadow Minister for Transport, Mr Howarth also articulated that it was his opinion that the change provided for in part I of the Bill to ensure the vehicle was insured, rather than just the driver, was the “right” approach given the medium-term outlook for the technology.²⁸

The issue of how data would be handled for insurance purposes was also commented upon during the session by a number of MPs, for example Graham Jones (Labour MP for Hyndburn), Alan Brown (SNP MP for Kilmarnock and Loudoun) and Craig Tracey (Conservative MP for North Warwickshire). In response to a question from Graham Jones, David Williams, Technical Director at AXA and Chair of the Autonomous Driving Insurance Group, indicated that he thought a framework for the use of data by insurance companies, not currently provided for in the Bill, would be useful. However, on balance, and despite this omission, he supported the Bill:

Our view was that it was better to support a Bill that would be part of a rolling programme of legislation and acknowledge that more needed to be done on that data piece than to delay it. We feel that delaying connected and autonomous vehicles hitting our roads would have a negative impact on road safety.²⁹

However, representatives from the Unite Union expressed concerns about the potential impact on jobs arising from innovation in the field of automated vehicles, including in the passenger transport, haulage, taxi, marine and agricultural industries.³⁰ In response to a question from Clive Efford (Labour MP for Eltham), Diana Holland, Unite’s Assistant General Secretary for Transport, set out her areas of concern:

We have two areas of concern. One is about issues that are not addressed by the Bill but have implications for the impact of driverless technology on the transport industry and on transport policy in our communities. I think there are problems and the House of Lords report [on CAVs, by the Science and Technology Committee] is extremely clear about all the outlying issues: job losses, job creation, job shifts. We would want that to be part of the discussion that goes on around this.

²⁷ [Public Bill Committee, *Automated and Electric Vehicles Bill*, 31 October 2017, session 2017–19, 1st sitting, col 7.](#)

²⁸ *ibid*, cols 8–9.

²⁹ *ibid*, col 12.

³⁰ *ibid*, col 22.

We are very concerned about some of the wording, specifically in clause 3(2) and clause 4(4), (5) and (6) around the software engineers. All sorts of people could be encompassed within that or it could lead to knock-on effects on people who work in the transport industry or in software engineering. They could be implicated either by the employer concerned or by the policies of the insurance company. We would want that to be addressed.³¹

The House of Lords Science and Technology report on the subject of CAVs, referred to by Diana Holland, was published on 15 March 2017.³² In it, the Committee had urged the Government to “broaden its focus so that its work on CAVs cuts across all sectors and does not focus so heavily on road vehicles” and for more coordination of strategy and information sharing across the different sectors that could benefit from CAV technology.³³ The report set out a number of recommendations, to which the Government responded in October 2017.³⁴ The report and government response were the subject of debate in the House on 20 December 2017.³⁵

2.2 Part 2: Charging of Electric Vehicles

Overview of the Provisions

Part 2 of the Bill supplements existing legislation on electric charging points. EU Directive 2014/94/EU, known as the ‘Alternative Fuels Infrastructure Directive’, sought to encourage an increase in harmonised alternative fuels infrastructure for both road vehicles and maritime vessels across the European Union, for example electric charge points.³⁶ It was transposed in the UK, following consultation, by the Alternative Fuels Infrastructure Regulations 2017, which mandated standard technical specifications for charging infrastructure and included a requirement on operators to allow ad hoc access by users (by, for example, not requiring that users hold a membership in order to access a charge point).³⁷ The Bill would supplement these regulations by providing delegated powers to “build on these

³¹ [Public Bill Committee, *Automated and Electric Vehicles Bill*, 31 October 2017, session 2017–19, 1st sitting, cols 20–1.](#)

³² House of Lords Science and Technology Committee, [Connected and Autonomous Vehicles: The Future?](#), 15 March 2017, HL Paper 115 of session 2016–17.

³³ House of Lords Science and Technology Committee, [‘Government Must Ensure UK Benefits from Autonomous Vehicles’](#), 15 March 2017.

³⁴ Department for Transport and Department for Business, Energy, Innovation and Skills, [Response to House of Lords Science and Technology Select Committee: ‘Connected and Autonomous Vehicles—The Future?’](#), 26 October 2017.

³⁵ [HL Hansard, 20 December 2017, cols 2177–208.](#)

³⁶ Department for Transport, [Consultation on Proposed Transposition of European Union Directive 2014/94/EU \(Alternative Fuels Infrastructure Directive\)](#), 24 October 2016, p 4.

³⁷ Alternative Fuels Infrastructure Regulations 2017; and Department for Transport, [Alternative Fuels Infrastructure Regulations 2017: Explanatory Notes](#), 7 September 2017. See also: Office for Low Emission Vehicles, [‘Transposition of Directive 2014/94/EU on Alternative Fuels Infrastructure’](#), 5 September 2017.

improvements”.³⁸

The proposed powers in clauses 8 to 16 would allow the Government to respond to developments in the sector as necessary over the coming years by potentially specifying:

- particular connection and payment methods;
- that charging infrastructure should be installed at strategic locations such as large fuel retailers or motorway service areas;
- that particular information about such services be made available;
- that data from charging points be made available; and
- that charging infrastructure should have smart functionality.

However, the Government stated in the impact assessment accompanying the clauses in this part that it would only use the powers provided if it deemed that intervention in the market was necessary. The Government argued that it would be appropriate to keep the powers in reserve in case the market was “not improving provision for consumers fast enough”.³⁹

The Government has stated that there are currently around 11,500 charging points for electric vehicles in the UK, and has argued that the provisions in part 2 would provide the scope to both encourage and support the expansion of this network.⁴⁰ Such infrastructure could be used by both the 115,000 ultra-low emission cars that have already been sold in the UK, together with those sold in the future.⁴¹

Summary of the Clauses

Clause 8 would define terms used in part 2, including “charge point”, “hydrogen refuelling point” and “public charging point”.⁴²

Clause 9 would provide a power for the Secretary of State to make regulations which could require operators to provide a uniform method of accessing public charging and refuelling points, and a common method of payment or access.⁴³

³⁸ [Explanatory Notes](#), p 3.

³⁹ Department for Transport, [Impact Assessment: New Legislative Powers for ULEV Infrastructure](#), 20 December 2016, p 1.

⁴⁰ [HC Hansard, 29 January 2018, col 616](#).

⁴¹ Department for Transport, Office for Low Emission Vehicles and Centre for Connected and Autonomous Vehicles, [‘Boost for Electric and Driverless Car Industry as Government Drives Forward Green Transport Revolution’](#), 18 October 2017.

⁴² [Explanatory Notes](#), p 7.

⁴³ *ibid.*

Clause 10 would provide a power to require large fuel retailers and service area operators to provide public charging points and to ensure these points are maintained and easily accessible. The Government has stated that this power could be used, for example, to mandate that public charge points at large fuel stations and motorway services were available 24-hours a day and were adequately maintained.⁴⁴

Clause 11 would provide a power to require consistency in the content and format of publicly available information provided by operators of public charging points, including the location, availability and cost of charge points. In addition, such information could be required to be made available in an open and transparent form.⁴⁵

Clause 12 was added during the Bill's passage through the House of Commons. It would provide a power to require the ongoing transmission of data from charge points to specified persons, who could include the National Grid or electricity distribution network operators. This information could relate to energy consumption and location.⁴⁶

Clause 13 would provide a power to prohibit the sale or installation of charge points in the UK unless they met certain requirements. This may include a requirement that any charge points have smart functionality; meaning that a charge point could receive and process information, transmit information, adjust the charge (or discharge) rate and/or resist a cyber-attack amongst other functionality.⁴⁷

Clause 14 would provide a power to enforce compliance with the requirements in this part. This could take the form of a civil penalty regime. The Government has stated that it is likely that an existing body would undertake enforcement action under this provision, and would pay the proceeds of any financial penalties into the consolidated fund—the Government's general current account at the Bank of England.⁴⁸

Clause 15 would provide the power for regulations to create exceptions from the requirements in this part, which could apply to either persons or devices. The Government has indicated that this would allow a degree of flexibility to ensure that the requirements were “not unjust or too onerous”.⁴⁹

Clause 16 sets out whether each regulation made under this part would be subject to the affirmative or negative resolution procedure.

⁴⁴ [Explanatory Notes](#), p 7.

⁴⁵ *ibid.*

⁴⁶ *ibid.*, p 8.

⁴⁷ *ibid.*

⁴⁸ *ibid.*

⁴⁹ *ibid.*

Responses to the Provisions

At the time of the Bill's publication, Steve Gooding, Director of the RAC Foundation, welcomed the Bill and urged the Government to do more to encourage the take-up of electric vehicles:

We are pleased to see the provisions of the Automated and Electric Vehicles Bill re-starting their passage through the parliamentary process.

It is clear that government needs to do more to accelerate the take-up of electric vehicles, tackling the issues that are currently persuading motorists to stick with conventional fuels, as well as paving the way for autonomy.⁵⁰

However, he added that the test of the Bill's effectiveness would be how well the powers in the Bill were exercised.⁵¹

A number of witnesses, including Mr Gooding, commented on the provisions in part 2 of the Bill when giving evidence to the Public Bill Committee in the House of Commons. During the Committee's second sitting on 31 October 2017, Mr Gooding repeated the RAC Foundation's earlier support for the Bill, adding how it addressed one of the reservations about electric vehicles held by consumers:

The Bill takes the perspective of asking, "What are the things that may currently cause a consumer to think twice or just to think, 'Not now?'" There is concern about range. Well, the auto companies are dealing with that, because the range of the vehicles is getting longer, but there is also concern about the complexity and ease of recharging, about whether a particular charge point will be available and working when someone pulls up, and about whether it will be the right sort for the vehicle that they have. If we are able to clarify those things and make them simpler, the market will be a lot more attractive.⁵²

Brian Madderson, Chairman of the Petrol Retailers Association, offered some criticism of the Bill. He argued that it was too interventionist, adding that he was against any form of mandating on large fuel retailers, as a step towards the wider roll-out of charging infrastructure, as compliance may prove very costly if the market developed in an unexpected way:

I do not agree at all with any form of mandating because this is

⁵⁰ Department for Transport, Office for Low Emission Vehicles and Centre for Connected and Autonomous Vehicles, '[Boost for Electric and Driverless Car Industry as Government Drives Forward Green Transport Revolution](#)', 18 October 2017.

⁵¹ *ibid.*

⁵² [Public Bill Committee, Automated and Electric Vehicles Bill, 31 October 2017, session 2017–19, 2nd sitting, cols 39–40.](#)

interventionist by the Government in a market that is so new and in such a state of flux that there should not be mandating. This is a perfect example of where market conditions should encourage investors to invest in the product that is right for them at the time. Mandating may make them make a false decision, which would prove very costly and certainly not be beneficial for the consumer.⁵³

Furthermore, in response to a question from Rosie Duffield (Labour MP for Canterbury) Mr Madderson argued that the power to require charging infrastructure be installed at large fuel retailers and service areas should be taken out of the Bill, because the Department for Transport had yet to define what would constitute a large fuel retailer. He asked:

Is it the size of the plot of a single one? Is it a multi-site organisation that might have filling stations all over the UK? Is it the amount of existing fossil fuel that a retailer is supplying? There is no definition, so I do not think it is reasonable or fair to mandate a large fuel retailer when you do not know what that is.⁵⁴

However, Marcus Stewart, Head of Energy Insights at the National Grid, commented on the suitability of locations such as fuel stations and motorway service areas for a roll out of charging points:

From the evidence that we have gathered when we have talked to and interviewed people, key locations on the motorway and strategic network are seen as key enablers for the roll-out of electric vehicles and will help to remove some of the concerns around range anxiety which is seen as one of the main barriers to the take-up of electric vehicles at the moment. Charging and plus charging in particular at key locations across the country will facilitate the roll-out. If you do not have that, it is likely that the roll-out will be slower.⁵⁵

In addition, Suleman Alli, Director of Strategy at UK Power Networks, agreed with Mr Stewart, and added that infrastructure installed in other locations, such as supermarkets, hotels and parking areas controlled by local authorities, would diversify the charging environment.⁵⁶

2.3 Part 3: Miscellaneous and General

The remaining clauses in the Bill concern miscellaneous and general matters.

Clause 17 would confer on the Secretary of State a general power to make consequential provision in relation to any provision in the Bill. This includes

⁵³ [Public Bill Committee, *Automated and Electric Vehicles Bill*, 31 October 2017, session 2017–19, 2nd sitting, col 46.](#)

⁵⁴ *ibid*, col 48.

⁵⁵ *ibid*, col 51.

⁵⁶ *ibid*.

a Henry VIII power to amend primary legislation passed before the end of the session in which the Bill is passed. The power would be subject to the affirmative resolution procedure in cases in which the power was exercised in relation to primary legislation, and the negative resolution procedure in all other cases.⁵⁷

Clauses 18, 19 and 20, respectively, would provide for: commencement of the provisions in the Bill, which would be by regulations for the substantive clauses in parts 1 and 2; extent; and the short title.

3. House of Commons Stages

3.1 Second Reading

The Bill's second reading debate in the House of Commons took place on 23 October 2017. Opening for the Government, the then Minister for Transport Legislation and Maritime, John Hayes, set out the context in which the Bill had been brought forward. He stated that exports of low emission vehicles were "already worth £2.5 billion" to the UK economy, and estimated that the market for autonomous vehicles could be worth £28 billion by 2035. For this reason, he argued that the Bill was salient.⁵⁸

Mr Hayes also argued that the matters considered in the Bill were not party political. He summarised the Government's approach in bringing forward the legislation as follows:

The job that the Government are doing is to legislate sufficiently so that change, innovation, and research and development are not inhibited, but not to the point where we dictate, or try to dictate, what the future might look like in this regard.⁵⁹

In respect of the insurance provisions in the Bill, Mr Hayes commented on the speed of technological changes in recent years that had led to vehicle innovations, such as assisted parking and cruise control.⁶⁰ He outlined the Government's expectation that automated cars would appear on UK roads from the 2020s, and argued that such developments would lead to an improvement in road safety given the "significant proportion" of accidents caused by human error. In preparation for these changes, Mr Hayes noted that the Bill would introduce a compulsory insurance framework that would cover motorists both when they were driving and when they had "legitimately handed control to the vehicle".⁶¹ He stated this had been in response to calls from the insurance industry for "absolute clarity" about the

⁵⁷ [Explanatory Notes](#), p 9; and Department for Transport, [Automated and Electric Vehicles Bill: Delegated Powers Memorandum](#), 30 January 2018, p 1.

⁵⁸ [HC Hansard, 23 October 2017, col 60](#).

⁵⁹ *ibid*, col 62.

⁶⁰ *ibid*, col 72.

⁶¹ *ibid*, col 73.

framework for the development of a series of suitable insurance products.⁶²

Regarding electric vehicles, Mr Hayes claimed that society had “long since moved beyond” the question of whether road transport would be electrified, arguing that it was “irrefragable” that this would occur. The question now, he contended, was “when—not whether—and at what pace”.⁶³ In preparation for the envisaged changes, therefore, the Bill had been designed to facilitate an increase in the number of charging points available to the public.⁶⁴

Summarising his remarks, Mr Hayes concluded: “Taken together, the two measures in the Bill will ensure that the UK is at the forefront of the most profound changes to affect road transport in over a century”.⁶⁵

Responding on behalf of the Labour Party, Karl Turner, Shadow Transport Minister, recalled the previous consideration of the Vehicle Technology and Aviation Bill in the 2016–17 session and agreed with Mr Hayes that the Bill currently under consideration was uncontentious.⁶⁶ Indeed, Mr Turner characterised the Bill as “crucial” and stated that Labour wished to support its passage, though it did “have some concerns about the impact of some of its parts”.

After commenting on the importance of the automotive industry in terms of jobs and its contribution to the UK economy, and alluding to the benefits of ultra-low emission vehicles for air quality, Mr Turner elaborated on Labour’s reservations in respect of the Bill. He argued there was “no clear distinction in UK policy, standards and legislation between advanced driver assistance systems and fully automated driving technology” and expressed concern about the provision in clause 1 that would allow the Secretary of State alone to define “what is and is not an automated vehicle”.⁶⁷

Mr Turner went on to express concerns regarding the potential increase in insurance premiums arising from changes proposed in the Bill.⁶⁸ After criticising the Government for reducing grants previously available to encourage the uptake of electric vehicles, Mr Turner urged the Government to “ensure that regulatory divergence does not develop between the UK and the EU as a result of Brexit”.⁶⁹ He argued that this was “essential if the UK is to be the vehicle manufacturers’ location of choice for the development, testing and deployment of automated and electric vehicles”. Mr Turner concluded his remarks by stating that although Labour would table amendments to the Bill in committee, it was “very broadly supportive”

⁶² [HC Hansard, 23 October 2017, col 65.](#)

⁶³ *ibid*, col 66.

⁶⁴ *ibid*, col 68.

⁶⁵ *ibid*, col 75.

⁶⁶ *ibid*.

⁶⁷ *ibid*, col 76.

⁶⁸ *ibid*, col 77.

⁶⁹ *ibid*, cols 79–80.

of the Bill as a whole.⁷⁰

Speaking on behalf of the Scottish National Party, Alan Brown, SNP spokesperson on transport issues, also recalled earlier consideration of the Vehicle Technology and Aviation Bill 2016–17.⁷¹ Although stating that the SNP welcomed the Bill, he went on to express some concerns about its effects, including the potential for higher insurance premiums due to the possibility of increased administrative costs on insurers. In addition, Mr Brown expressed his view that the Bill included “some limited interventions that will help towards the uptake of electric or ultra-low emission vehicles”, but suggested this was not adequate on its own, adding that “much more will be required”.⁷² Mr Brown continued by calling for greater clarity in respect of the requirements and exemptions that would apply to large fuel retailers and service areas. He went on to favourably contrast the record of the Scottish Government on the installation of electric charging infrastructure and support for electric vehicles to that of the UK Government.⁷³

Christine Jardine (Liberal Democrat MP for Edinburgh West) added that her party supported the Bill, although this support was not unreserved. Elaborating on this position, she stated:

We have serious reservations about the approach—it is not the widespread approach that is needed to maximise the benefits and effectively control these new technologies—and about issues that have already been mentioned, such as moral judgments by computers, insurance and vehicle excise.⁷⁴

3.2 Committee Stage

A public bill committee examined the Bill over the course of seven sittings. During the first two sittings, the Committee took evidence from electric vehicle advocates and representatives from insurance groups, unions and the automotive and electricity sectors. No changes were made to the Bill during the sittings, though a number of amendments were moved and debated. These included:

- An amendment from Labour that would have required the Secretary of State for Transport to consult on and publish the criteria used in designating whether vehicles were capable of safely driving themselves. After debate, the amendment was defeated on division by nine votes to six.

⁷⁰ [HC Hansard, 23 October 2017, col 80.](#)

⁷¹ *ibid*, col 84.

⁷² *ibid*, col 86.

⁷³ *ibid*, cols 86–7.

⁷⁴ *ibid*, col 103.

- An amendment from the SNP that sought to ensure the manufacturer of an automated vehicle had made every possible effort to inform the owner of the vehicle that a software update was needed before liability was passed to the owner. After debate, the amendment was defeated on division by nine votes to eight.

Other amendments were debated but later withdrawn. These included amendments relating to: the definition of an automated vehicle driving itself; a proposed consultation with charge point operators and vehicle manufacturers on technical requirements; possible exemptions for fuel station operators with limited forecourt space; and cyber security, amongst other measures.⁷⁵

3.3 Report Stage and Third Reading

Report Stage

At the beginning of the Bill's report stage, which took place on 29 January 2018, Jesse Norman, Parliamentary Under Secretary of State at the Department for Transport, moved a new clause on the transmission of data relating to charge points.⁷⁶ This followed debate on the subject of data during the Bill's committee stage. Karl Turner stated that the Opposition supported the new clause, and, after debate, the new clause and consequential amendments were added to the Bill. This new clause became clause 12 in the Bill as introduced in the House of Lords.

Also during report stage, Wera Hobhouse, Liberal Democrat Spokesperson for Housing, Communities and Local Government, moved a new clause that would have provided the Secretary of State with the power to make regulations requiring owners and operators of certain public facilities, including potentially supermarkets, train stations and airports, to work with local authorities to provide public charging points and ensure these were maintained.⁷⁷ Responding to this proposed new clause, Mr Norman stated that the Government was focusing on large fuel retailers and service areas "precisely [to address] concerns about range anxiety". The proposed new clause was not added to the Bill.

⁷⁵ [Public Bill Committee, *Automated and Electric Vehicles Bill*, 2 November 2017, session 2017–19, 3rd sitting, cols 73–98](#); [Public Bill Committee, *Automated and Electric Vehicles Bill*, 2 November 2017, session 2017–19, 4th sitting, cols 99–120](#); [Public Bill Committee, *Automated and Electric Vehicles Bill*, 14 November 2017, session 2017–19, 5th sitting, cols 121–48](#); [Public Bill Committee, *Automated and Electric Vehicles Bill*, 14 November 2017, session 2017–19, 6th sitting, cols 149–90](#); and [Public Bill Committee, *Automated and Electric Vehicles Bill*, 16 November 2017, session 2017–19, 7th sitting, cols 191–216](#).

⁷⁶ [HC Hansard, 29 January 2018, col 613](#).

⁷⁷ *ibid*, col 613. See also: *ibid*, cols 632–3.

In addition, a proposed new clause tabled by Matt Western (Labour MP for Warwick and Leamington) would have required the Secretary of State to set out a strategy for establishing charge points for public transport and commercial vehicles. During the course of the debate, Mr Norman announced that the Government expected to publish an “updated strategy for promoting the uptake of all electric vehicles” by the end of March 2018. The proposed new clause was not added to the Bill.⁷⁸

Third Reading

The Secretary of State for Transport, Chris Grayling, opened the third reading debate on behalf of the Government. He reiterated the Government’s view that the framework for automated vehicle insurance provided for in the Bill would provide certainty and that the electric charging measures would aid the rollout of “ubiquitous and fast-charging” infrastructure in support of the widespread adoption of electric vehicles.⁷⁹ He added that, taken together, the measures in the Bill would ensure that the UK was at the “forefront” of “profound” technological change.⁸⁰

Speaking for the Labour Party, Andy McDonald, Shadow Secretary of State for Transport, stated that Mr Grayling was correct when he highlighted the potential for electric and automated vehicles. It was therefore right, in Mr McDonald’s view, for a Bill to have been brought forward to “allow those technologies to be facilitated and encouraged”.⁸¹ However, he also stated that the Bill did not on its own “add up to the wider policy framework that is required for the UK to take advantage of the opportunities presented to us”. Despite this reservation, Mr McDonald stated that Labour supported the Bill.⁸² He concluded by predicting that greater clarity on the Government’s strategy for electric charging infrastructure would be sought when the Bill was considered by the House of Lords.

On behalf of the SNP, Alan Brown repeated his welcome for the Bill, “as far as it goes”. He also raised the issue of training for technicians for the new technologies, before adding that the new generation of vehicles could “provide opportunities to address equality issues” by providing more opportunity for disabled and elderly people to travel.⁸³

⁷⁸ [HC Hansard, 29 January 2018, col 619.](#)

⁷⁹ *ibid*, col 637.

⁸⁰ *ibid*, col 638.

⁸¹ *ibid*.

⁸² *ibid*, col 639.

⁸³ *ibid*, cols 643–4.

4. Further Information

- UK Parliament, '[Automated and Electric Vehicles Bill 2017–19](#)', accessed 5 February 2018

The Automated and Electric Vehicles Bill page on the parliamentary website, which provides information on the current progress of the Bill and access to relevant Hansard entries and documents.

- House of Commons Library, [Automated and Electric Vehicles Bill 2017–19](#), 28 November 2017

House of Commons Library briefing on the Bill, which provides background information on the provisions and an overview of the Bill's progress through the House of Commons, up to and including the Bill's consideration by a public bill committee.

- House of Lords Science and Technology Committee, [Connected and Autonomous Vehicles: The Future?](#), 15 March 2017, HL Paper 115 of session 2016–17; [Government Response](#), 26 October 2017; and [Debate on 'Science and Technology Committee Report: Connected and Autonomous Vehicles: The Future?'](#), HL Hansard, 20 December 2017, cols 2177–208

Report from the House of Lords Science and Technology Committee, in which the Committee made a number of recommendations relating to the development and use of CAV technology, together with the Government's response and the Hansard transcript of the House of Lords debate on the report.

- House of Commons Library, [Connected and Autonomous Road Vehicles](#), 12 June 2017; and [Electric Vehicles and Infrastructure](#), 31 August 2017

House of Commons Library briefings on CAVs and related infrastructure, which provide background information on the regulatory and policy context to, and recent developments in, these areas.