

PARLIAMENTARY DEBATES

HOUSE OF COMMONS
OFFICIAL REPORT

Fourth Delegated Legislation Committee

DRAFT ELECTRIC VEHICLES
(SMART CHARGE POINTS) REGULATIONS 2021

Wednesday 8 December 2021

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The Committee consisted of the following Members:

Chair: MR LAURENCE ROBERTSON

- | | |
|---|---|
| † Chapman, Douglas (<i>Dunfermline and West Fife</i>) (SNP) | † Morris, Grahame (<i>Easington</i>) (Lab) |
| † Colburn, Elliot (<i>Carshalton and Wallington</i>) (Con) | † Pawsey, Mark (<i>Rugby</i>) (Con) |
| † Cruddas, Jon (<i>Dagenham and Rainham</i>) (Lab) | † Richards, Nicola (<i>West Bromwich East</i>) (Con) |
| † Elphicke, Mrs Natalie (<i>Dover</i>) (Con) | † Robinson, Mary (<i>Cheadle</i>) (Con) |
| † Farris, Laura (<i>Newbury</i>) (Con) | † Solloway, Amanda (<i>Lord Commissioner of Her Majesty's Treasury</i>) |
| † Greenwood, Lilian (<i>Nottingham South</i>) (Lab) | † Thomas, Derek (<i>St Ives</i>) (Con) |
| † Harrison, Trudy (<i>Parliamentary Under-Secretary of State for Transport</i>) | Timms, Stephen (<i>East Ham</i>) (Lab) |
| † Johnston, David (<i>Wantage</i>) (Con) | Chloe Freeman, Stella Maria Gabriel, <i>Committee Clerks</i> |
| † Jones, Mr Kevan (<i>North Durham</i>) (Lab) | |
| † Kane, Mike (<i>Wythenshawe and Sale East</i>) (Lab) | † attended the Committee |

Fourth Delegated Legislation Committee

Wednesday 8 December 2021

[MR LAURENCE ROBERTSON *in the Chair*]

Draft Electric Vehicles (Smart Charge Points) Regulations 2021

2.30 pm

The Chair: I remind Members that they are expected to wear face coverings when not speaking and to maintain distancing as far as possible, in line with current Government guidance and that of the House of Commons Commission. Please give one another and members of staff space when seated and when entering and leaving the room. I also remind Members that they are asked by the House to have covid lateral flow tests twice a week if coming on to the parliamentary estate—either at home or in the House. Will Members send their speaking notes by email to hansardnotes@parliament.uk? Similarly, officials in the Gallery can communicate electronically with Ministers. I call the Minister to move the motion.

The Parliamentary Under-Secretary of State for Transport (Trudy Harrison): I beg to move,

That the Committee has considered the draft Electric Vehicles (Smart Charge Points) Regulations 2021.

It is a pleasure to serve under your chairmanship this afternoon, Mr Robertson. The regulations will be made under the powers provided by the Automated and Electric Vehicles Act 2018. They mandate that most new private electric vehicle charge points sold in Great Britain be capable of smart charging and meeting minimum device-level requirements. They will play an important role in helping us to meet our transport decarbonisation targets.

As announced by the Prime Minister as part of the world-leading 10-point plan for a green industrial revolution, the Government are going further and faster to decarbonise transport by phasing out the sale of new petrol and diesel cars and vans by 2030. From 2035, all new cars and vans must be 100% zero emission at the tailpipe. Cars and vans represent one fifth of UK domestic CO₂ emissions, and accounted for 71% of domestic UK transport emissions in 2019. Ending the sale of conventional new petrol and diesel cars and vans is a key part of the answer to our long-term transport, air quality and greenhouse gas emissions.

Electric vehicles do not only present a huge opportunity to decarbonise transport. They also present an opportunity for consumers to contribute to the efficient management of electricity and to share the benefits of doing so. Smart charging will enable that. It enables consumers to shift their EV charging to times when electricity is cheaper and demand is low. It is a win-win, both reducing the need for costly network reinforcement and saving consumers money on their energy bills. Today we are debating regulations that are essential to drive the uptake of this important technology to enable the transition to electric vehicles while minimising costs to consumers.

This instrument could deliver up to £1.1 billion of savings to the power system by 2050. Through this instrument, the Government will deliver four key objectives

for smart charging policy by driving consumer uptake; delivering consumer protections; helping to ensure the stability of the electricity grid; and supporting innovation.

I will provide the Committee with some details on the key provisions in the instrument. First, the regulations mandate that most domestic and workplace charge points sold in Great Britain will have the capability to smart-charge so that consumers can benefit from the savings that that offers. Many home charge points already have smart functionality, so this instrument will work with the grain of the market and consumer behaviours to drive significant uptake of the technology and reduce the cost of EV transition.

It is important to note that the instrument maintains consumer choice. It mandates that charge points must have the functionality to support smart charging. Consumers will still be in control of when they charge, and they will of course continue to be able to choose the energy tariff that suits their needs and decide whether they subscribe to smart-charging services.

Some consumers might not engage with smart charging so, to encourage them to charge at times of low electricity demand, the instrument ensures that charge points are pre-set not to charge at peak times. Importantly, the instrument mandates that consumers must be informed and asked to confirm the setting during first use and that they must also be able to edit it at any future point too.

Secondly, the regulations establish new cyber-security and grid protection requirements. The instrument embeds new and more robust cyber-hygiene standards into smart charge points to help mitigate the risk that charge points are hacked and controlled to the detriment of both individual consumers and the electricity system. It also requires a randomised delay function to prevent the synchronised switching on or off of a large number of charge points—for example, in response to a drop in electricity prices. This will help ensure that smart charge points support the integration of EVs into the electricity system and do not destabilise it.

Thirdly, the instrument sets new requirements on how charge points monitor and record electricity consumption. This requirement will help consumers to engage with their energy bills and usage and ensure a charge point is capable of supporting smart services. Many requirements, such as cyber-security, electricity monitoring and the randomised delay function, align with standards developed with industry, namely the British standard for energy smart appliances, PAS 1878.

Finally, we are mandating that, in the event that a consumer switches their electricity supplier, their charge point must retain its smart functionality. This will ensure that consumers are not locked into a specific energy supplier by their choice of charge point. Members of the Committee will note that, across the instrument, we have taken an outcome-focused approach and do not prescribe specific technical implementations. This approach will support ongoing innovation within the charge point market and will help to maintain our position as world leaders in smart technology.

These regulations are essential to ensuring the successful uptake of smart-charging technology and to supporting the electricity grid and consumers in the transition to electric vehicles. I hope that colleagues will join me in supporting the regulations, which I commend to the Committee.

2.36 pm

Mike Kane (Wythenshawe and Sale East) (Lab): It is a pleasure to serve under your chairmanship, Mr Robertson. I am disappointed that Bolton Wanderers are slipping slightly in the league table, but I am sure they will turn the season round before we know it.

I wish to raise a few points about the statutory instrument. We agree that stopping the sale of non-electric vehicles by 2030 is the right thing to do, but my colleagues and I are concerned that there is no legislation governing the resale of diesel and petrol vehicles in the second-hand market going forward. Another concern we have raised is that, as the Minister has said, the Government have finally adopted Labour's policy of phasing out the sales of new petrol and diesel vehicles by 2030, but hybrid vehicles will still be sold until 2035. If it is a genuine commitment, there seems to be a lack of joined-up thinking from Government in their policy on this matter. Without sufficient infrastructure and charging points available to all across the nation, we can see people using an electric car for day-to-day journeys and retaining an older, more polluting vehicle for longer trips. I have not checked with the House of Commons Library today, but we currently have about 40 million registered vehicles on our roads. We know our road infrastructure cannot cope with that, but we are worried that people will retain their old polluting cars and get an electric vehicle. We know what savage chaos and congestion that will cause up and down our land.

When we drive our petrol or diesel vehicles 250 miles to see family or for a holiday in this country, we all know that we will be able to access fuel on arrival. Can the same be said for accessing a working charge point everywhere in the country? Fully electric and hybrid vehicle sales have surged this year, making up more than a quarter of new vehicle sales in 2021, according to the Society of Motor Manufacturers and Traders. However, the UK's charging infrastructure is falling behind and overall funding for charging given out to local authorities has fallen from £15 million in 2019-20 to 6.5 million in 2020-21. Many local authorities are having to use available funds for remaining schemes and not every dwelling has a parking spot.

I do not need to tell anyone in this Room that Storm Arwen, which hit this country almost two weeks ago, has wreaked havoc on the nation's power supply. This was raised by my hon. Friend the Member for City of Durham (Mary Kelly Foy) at Prime Minister's question, and I have the massive Durham contingent of my hon. Friend the Member for Easington and my right hon. Friend then Member for North Durham behind me in Committee today. There are areas in the north of England that are still without power. How can the Government guarantee that in such circumstances there will be capacity to charge electric vehicles? It goes without saying that emergency vehicles must be able to charge their EVs regardless. What can the Government do to provide assurances that essential car users such as carers, NHS workers, police, the fire service, hauliers and food deliverers will be able to charge their vehicles? It has been 10 days since that storm.

We must be mindful of the fact that wi-fi coverage will be necessary to charge vehicles. What steps will be taken to ensure that customers will be able to recharge? I am not alone in not always having mobile coverage in this country. If I want to drive to holiday in the Orkney islands,

as I regularly do, will I be able to? That is a 500-mile journey from Manchester, and EV vehicles can currently only cover about half of that journey. In the capital and other major cities, we have excellent mobile signal coverage, but is that the same in our rural areas and highlands? That needs to be addressed by the Minister.

The Government promised a charging strategy by the end of the year. Today is 8 December. Where is it? We need action to address regional inequalities and quickly ramp up charging to ensure that it is both easy to use and accessible to customers. Can the Minister provide an update on that strategy? She is correct in saying that the transition to electric vehicles is a huge opportunity for cleaner, lower emissions, and has the potential to create thousands of good green jobs, highly trade unionised across our country. However, the Government need to think bigger when it comes to charging infrastructure, affordability, and the supply chain.

2.42 pm

Mr Kevan Jones (North Durham) (Lab): It is a pleasure to serve under your chairmanship, Mr Robertson. I have a few general points to make that relate specifically to what the Minister said. The present Government have gone into some type of academic competition to see who can be greener than green, and they have set the ambitious target of 2030 as the date when no non-electric vehicles will be sold. However, let us be realistic; most of our constituents do not buy new cars. They will be reliant on petrol, diesel or hybrid cars for quite some time. Certainly a lot of my constituents, and others in rural communities, rely on heavier vehicles—diesel, mainly—for work, farming, and other things.

I have not yet seen a technology that is going to replace some of those vehicles. We all need to be realistic, and although the Government's ambition is to be lauded, the reality is that 2030 will not be a sudden cut-off date whereby everything is going to change. That will not be the case—in certain areas, diesel, hybrid, or alternatives such as hydrogen-powered vehicle are going to be the answer rather than electric vehicles.

The Minister talks about the consumer. In certain areas—take North Durham and Easington for example—it may be easy for someone to install a charging point in a leafy, detached or semi-detached house, but in a terraced street in Horden or Craghead, how are we going to install an electric charging point without a succession of cables running across the street to charge people's cars? I do not think enough thought has gone into this. Many people will have to rely on public charging points rather than installing them in their own homes.

The same applies to inner cities, to people living in blocks of flats, for example. Are we to have cables dangling from a six-floor tower block down to an electric car in the car park? Of course not. If we are to get to a situation where we have only electric vehicles, how are people going to access those charging points? That brings us on to the issue about competition, because those individuals will not have a choice to install a charging point at home and then look for the cheapest tariff. They will be reliant on going to a garage, a local council facility or some other body that sets up charging points. They could be at a disadvantage, because they will not be able to shop around for the cheapest tariff. That needs to be thought about as well. There is not just the added cost, for many of these people, to acquire an

[Mr Kevan Jones]

electric vehicle, which they may not do for many years. As I have said, many of our constituents do not buy brand-new cars—

Mark Pawsey (Rugby) (Con): The right hon. Gentleman is talking about people—often living in terraced houses—being able to charge their cars. Many of them will be able to charge at work. There are enlightened employers who are providing charging points. I will give as an example Cadent, which is setting up in my constituency a new office development where there will be charging for people at work. There are ways of getting around this issue.

Mr Jones: I applaud those employers, but let me examine what the hon. Gentleman is suggesting. Let us say that someone lives in Stanley in my constituency, in a terraced street in Craghead, and they work at the local Asda supermarket, for example. Certainly they could drive their car there, but will all employers be queuing up to provide charging points? A lot of charging points would have to be developed. Actually, only certain people will be able to access such provision. Some enlightened employers may well provide charging points, but we need to think about the individuals I am talking about, because there is going to be a poverty trap for some of these individuals, who will not have the choice to go for cheap tariffs or deals on their electricity accounts, because they will not physically be able ever to put in a charging point at home. That needs to be thought about.

Another issue is that local authorities and car parks are putting charging points in car parks, but some of them have cut-off times when those car parks are closed, for perfectly good reasons, so they will not be open to constituents who do not have access to charging points at home. That will be a particular issue, I think, in rural communities.

Mary Robinson (Cheadle) (Con): The right hon. Gentleman is developing a really important point. Has he considered the possibility for the future of people using community charging points? In exactly the same area that he describes in his constituency, a member of the community might be able to rent out their own charging point to enable those who cannot put one on their own property to use that community one.

The Chair: Order. Before we continue, I point out that we are getting a little wide of the motion, which is about the actual make-up of the points, which involves smart functionality and the specified cyber-security requirements. I have let this debate go on for a few minutes, but perhaps we could get back to the main point in just a moment.

Mr Jones: I would not challenge your ruling, Mr Robertson, but the point is that it is the smart technology that allows people to get different tariffs and cheaper rates, and the people I am talking about will be at a disadvantage.

The hon. Member for Cheadle makes a good point, which I would support; I would have no problem with what she suggests. But again, will people have to drive

and leave their car overnight at a community charging point in order to get the cheaper rates from that smart meter, rather than having access to them? I doubt whether they will do that, because there would be security issues in relation to the vehicle and things like that. However, the initiative that the hon. Lady suggests is a good one.

Before I go on to security, I will talk about wi-fi, because it is a related issue in terms of smart technology. The explanatory memorandum says:

“Charge points will rely on a network connection to meet the smart requirements within the legislation, for example using Wi-Fi.”

That is great—if people have access to wi-fi. As my hon. Friend the Member for Wythenshawe and Sale East said from the Front Bench, it is patchy, to say the least, in some areas and certainly in rural communities. If we are not careful, it will mean that parts of the country, especially rural communities—I know certain parts of my constituency where wi-fi connection is not good at the best of times—might be disadvantaged, because they will not be able to connect their smart meter to the wi-fi network.

It is okay to agree on the regulations, and I will come to electricity grids in a minute, but there has to be a holistic approach to how things will work. I accept that if someone does not have access to wi-fi or the coverage is intermittent, the meter will still work—that is what the regulations say—but some people will be put at a disadvantage. Again, that needs to be thought about.

I turn to cyber-security. I accept that the regulations say that cyber-security needs to be taken into consideration, but I have a direct question for the Minister. Who is monitoring the components that are going into the smart technology? Following Huawei’s involvement in the telephone network, we found that there could be—I know there is a lot of nonsense said about it—an issue with cyber-security because of the components. I would like to understand who is monitoring the components going into the smart meters, because otherwise we could open up our networks to potential cyber-attack.

I would also be interested to know what the market is, because one of the issues around Huawei was that the Chinese had come to dominate the market over successive years, as Huawei and two other companies were providing part of the technology. Do we have robust enough components and smart metering companies providing the technology, to ensure that there is a real market in which the consumer has choice, which obviously gets cost down, and, more importantly, that there is investment in technology and cyber-security?

The regulations say that the Department for Digital, Culture, Media and Sport looked at this issue. I would be interested to know whether the components and structure of smart meters have been looked at by the National Cyber Security Centre to ensure that not only the components but the technology and how it works are as robust as possible. That could lead to a vulnerability: if someone got into a network and could close things down or disrupt them in some way, that could have a devastating effect like we have seen recently in the United States, where there was cyber-hacking of the petrol network that supplies fuel. The principle is the same. There, the hackers got in and stopped the pumping of petrol through pipelines. An equivalent of that would be if someone could get into the network and disrupt charging points.

Their maintenance and ensuring that the components are safe will be very important for the future; otherwise there could be vulnerabilities, which would be an issue.

Finally, I want to talk about the resilience of the network. As my hon. Friend the Member for Wythenshawe and Sale East said, it is fine to have electric vehicles and charging points, but it is no good having an electricity grid that is not robust, as we have seen in parts of the north-east in the last few days. People did not have electricity for 10 days, with some even experiencing their 11th or 12th day without electricity. Again, this is important, and I would like to understand how the issue will be linked to the urgent need to look at the resilience of the electricity grid system, as I have called for this week.

I do not oppose electric vehicles, but we need to get realistic about how quickly this will happen and how safe it will be. More importantly, we should not end up with a two-tier system whereby only some consumers have access to cheap electricity for charging.

Grahame Morris (Easington) (Lab): I want to briefly raise an important point about that disparity, particularly in relation to people who are less well off. My understanding is that VAT is applied to electricity drawn from community charging points at a rate of 20%, whereas if someone is fortunate enough to have a charging point on their drive, VAT is payable at only 5%. That makes a massive difference. I stand to be corrected, and I look to the Minister for guidance. It is an issue that should be of concern to us all.

Mr Jones: My hon. Friend raises a very good point. If that is the case, it is another example of a market where those who can afford least will pay more. That cannot be right. In the gallop towards the nirvana of net zero that the Government are trying to achieve, we cannot create situation where markets will be fixed so that those who can least afford to pay will pay more. Our considerations should not be just about charging points but the whole issue—network security, affordability and some practical issues about where these charging points will work and where they will not.

2.56 pm

Trudy Harrison: I fear that we strayed considerably from the technical aspects. As interesting as it was, I recommend that those interested perhaps attend Westminster Hall debates for a comprehensive discussion on the wider aspects of EV charging.

To respond to some questions, the regulatory requirements are aligned with the British standard for energy smart appliances PAS 1878 and build on relevant existing international and European standards. I am more than happy to write to the right hon. Member for North Durham with a comprehensive response on the cyber-security aspects.

On charging, there are 26,000 publicly available charge points, of which 4,900 are rapid chargers. We know more needs to be done, but we are working with local authorities, and I encourage Members across the House to work with me to help their local authorities roll out the necessary charge point infrastructure, which must match, as the hon. Member for Wythenshawe and Sale East said, the considerable interest in electric vehicles.

The draft regulations are an essential step in ensuring the success uptake of electric vehicles and, therefore, the decarbonisation of transport. They are particularly about the technical capability to take part in smart charging and assist with managing the electricity system, while saving money on energy bills. This is the first step.

Mr Jones: Will the Minister give way?

Trudy Harrison: I am afraid I will not, because I know votes are imminent. Work will continue so that consumers can fully access smart benefits and participate in the transition to a flexible system.

Mr Jones: On a point of order, Mr Robertson. I thought the purpose of scrutiny was to ask questions that the Minister responds to. She is just reading out the civil service brief in front of her, which is not good enough.

The Chair: It is not for me to decide what the Minister says.

Trudy Harrison: I assure the Committee that this is my work. This will include the continued roll-out of smart meters to households and small businesses across Great Britain, and implementing further protections for consumers and the energy system. I hope the Committee will join me in supporting this statutory instrument.

Question put and agreed to.

2.59 pm

Committee rose.

