

# Electric Vehicle Charging Infrastructure

October 2019



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# Electric Vehicle Charging Infrastructure

October 2019



# About the Committee

The Committee was established on 28 June 2016. Its remit can be found at: [www.assembly.wales/SeneddEIS](http://www.assembly.wales/SeneddEIS)

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## Committee Chair:



**Russell George AM**  
Welsh Conservatives  
Montgomeryshire

## Current Committee membership:



**Mohammad Asghar AM**  
Welsh Conservatives  
South Wales East



**Hefin David AM**  
Welsh Labour  
Caerphilly



**Vikki Howells AM**  
Welsh Labour  
Cynon Valley



**Bethan Sayed AM**  
Plaid Cymru  
South Wales West



**Joyce Watson AM**  
Welsh Labour  
Mid and West Wales

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The following Members attended as substitutes during this inquiry.



**Rhun ap Iorwerth AM**  
Plaid Cymru  
Ynys Môn



**Dawn Bowden AM**  
Welsh Labour  
Merthyr Tydfil and Rhymney

The following Members were also members of the Committee during this inquiry.



**David J Rowlands AM**  
Brexit Party  
South Wales East



**Lee Waters AM**  
Welsh Labour  
Llanelli

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## Chair's foreword

The switch from petrol and diesel to electric vehicles is a fast-moving area, and we wanted to be sure our emerging thoughts were in step with the evolving world. Earlier this year, we took the unusual step of publishing a draft report and making it available for stakeholders to comment and reflect on what we'd seen so far. As a result, we've been able to ensure the voice of those who use electric cars, and those curious about doing so in the future, has been heard.

This short final report sets out our final recommendations on the subject. It does not repeat the arguments, or the evidence set out in our draft report. Instead, its focus is on the urgent action we need to see from the Welsh Government and other key players to ensure that Wales is a leader when it comes to making our transport systems cleaner and greener.

Witnesses were clear that urgent action is needed and we look forward to discussing that action with the Minister to drive this agenda forward.

I'm grateful to all who contributed to this inquiry throughout the process, and in particular to Rhun ap Iorwerth AM who undertook additional research in Scotland and shared it with the Committee for our consideration.

A handwritten signature in black ink that reads "Russell George". The signature is written in a cursive style with a long horizontal stroke at the end.

Russell George,  
Chair, Economy, Infrastructure and Skills Committee.

## Recommendations

**Recommendation 1.** The Welsh Government’s policies and aspirations are pointing in the right direction, and while there has been a perceived lack of activity to date this could create opportunities to learn from what works elsewhere. It is vital now that the promised charging strategy is delivered in 2020, and supported by sufficient financial and political capital to ensure that the Minister’s vision can be turned into reality without delay..... Page 12

**Recommendation 2.** Welsh Government should lead by example among public bodies in Wales and switch its fleet of vehicles to electric and low emission vehicles at the earliest opportunity. It should also agree ambitious but realistic targets for all public sector fleets in Wales to switch, as proposed in Prosperity for All: A Low Carbon Wales..... Page 14

**Recommendation 3.** The forthcoming Transport Strategy, expected in 2020 should ensure that the decarbonisation commitments already made by the Welsh Government are front and centre, and supported by the appropriate political leadership and financial investment to deliver a cleaner, greener transport network. .... Page 14

**Recommendation 4.** The Welsh Government’s engagement with stakeholders has been lacking – local government in particular has been critical of efforts to date. In his evidence the Minister recognised the importance of working in partnership with others and we expect to see progress in this area around the development and publication of the EV charging strategy..... Page 15

**Recommendation 5.** It is vital that the procurement of a TfW-led EV Charging network learns the lessons of Superfast Cymru (i.e. do not over-promise, communicate effectively, and ensure that where public investment creates private profit, there is a mechanism to share that benefit and increase the scope of the intervention)..... Page 15

**Recommendation 6.** The requirement in Planning Policy Wales 10 that new non-residential developments should have charging points in at least 10% of the parking spaces available, should be extended to include residential developments. Consideration must also be given to raising the percentage of parking spaces with charging points, as EVs become more prevalent. .... Page 18



**Recommendation 7.** Welsh Government should proactively encourage and support local authorities in Wales to maximise uptake of UK Government grants to support new charging points. This could include requiring successful local authorities to share best practice on bidding with others..... Page 19

**Recommendation 8.** Welsh local authorities should consider whether the local incentives proposed by Scottish Chief Officers of Transportation would be effective in their areas..... Page 23

## 1. Background

The Committee carried out a short, focused inquiry into electric vehicle charging infrastructure in Wales. It produced a draft report in February 2019, and used that for further public consultation using an online forum. It also took evidence from the Minister for Economy and Transport.

- 1.** Following a written consultation which ran from September to November 2018 and received 17 responses<sup>1</sup>, the Committee took oral evidence from a small number of stakeholders before publishing a draft report in February 2019.
- 2.** This draft report was made available to trigger further discussion with the Welsh public, and was discussed with the Minister for Economy and Transport at a scrutiny session on 15 May 2019.
- 3.** Following the Minister's session and taking in to account additional evidence from the Minister, and "Driving Change: Scottish Lessons for Wales' Electric Vehicle Future"<sup>2</sup>, a report compiled by Rhun ap Iorwerth AM, the Committee is now publishing its final recommendations.

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<sup>1</sup> [Written consultation responses](#)

<sup>2</sup> [www.rhunapiorwerth.cymru/wp-content/uploads/2019/05/Driving-Change-Rhun-ap-Iorwerth-1.pdf](http://www.rhunapiorwerth.cymru/wp-content/uploads/2019/05/Driving-Change-Rhun-ap-Iorwerth-1.pdf)

## 2. Updates since the draft report

Since the Committee produced its draft report there have been a number of debates, statements and publications which have moved the agenda forwards. This chapter sets out the main changes.

### Policy changes since the draft report

- 4.** Shortly after the publication of the Committee's draft report, in March 2019, the Welsh Government published its first low carbon delivery plan. Prosperity for All: A Low Carbon Wales<sup>3</sup> sets out how Wales aims to meet its first carbon budget (2016-2020) and consequently the 2020 interim target through 76 existing policies from across the Welsh Government, UK Government and the EU – and 24 new proposals. Five of the existing policies and four of the proposals relate to electric vehicles (EVs) and associated charging infrastructure.
- 5.** These include policy aims to increase the proportion of electric and low emission vehicles, reduce the carbon footprint of buses and taxis, and proposals to switch the Public Sector fleet to ultra-low emissions by 2025, and achieve modal shift away from cars towards more sustainable transport.
- 6.** The Committee welcomes the steps the Welsh Government is taking to ensure that Wales has the necessary infrastructure for the anticipated growth of electric vehicles. While the direction of travel seems correct, the need now is for more urgent action.

### Decarbonisation

- 7.** Decarbonisation is increasingly becoming a priority for the Welsh Government. It added decarbonisation as a sixth priority in Prosperity for All<sup>4</sup> in July 2018 and established a Decarbonisation Ministerial Task and Finish Group. Wales also has ambitious new climate change targets under the *Environment (Wales) Act 2016* and the *Climate Change (Wales) Regulations 2018*.<sup>5</sup>

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<sup>3</sup> <https://gweddi.gov.wales/docs/desh/publications/190321-prosperity-for-all-a-low-carbon-wales-en.pdf>

<sup>4</sup> The Welsh Government's "National Strategy"

<sup>5</sup> [Senedd Research blog](#), Climate Change (Wales) Regulations 2018 and the Environment (Wales) Act 2016

8. According to the latest figures from the UK Committee on Climate Change (UK CCC)<sup>6</sup> transport in Wales accounts for 13 percent of Wales' emissions.<sup>7</sup> Transport emissions increased by 2% in Wales in 2016, the third consecutive annual increase.

9. The Committee intends to do a more detailed piece of work looking at decarbonisation of transport in Wales during the Autumn term.

## Current charging infrastructure

10. A key theme from the written evidence was that, to date, there has been little coordination in the early roll out of charging facilities, with companies competing to establish market leadership. This lack of standardisation creates a barrier to EV adoption, with consumers confused by the systems of membership payments, cards and apps.<sup>8</sup>

11. The UK Government Office of Low Emission Vehicles (OLEV) offers a number of grants to support the installation of EV charging points.<sup>9</sup> The grants are available to individuals, organisations and businesses across the UK.

12. On 12 August 2019, the UK Government announced it was doubling the money available to Local Authorities to support charge points on residential streets. This money is available to support those areas which lack off-street parking. Given the concerns the Committee has heard that Wales's terraced houses will struggle to adapt to electric vehicles. While Cardiff and Carmarthenshire, have already made bids<sup>10</sup>, this is clearly an opportunity for other Welsh Local Authorities to bid.

13. OLEV's Workplace charging scheme has also seen charge points installed in Cardiff (19), Swansea (20), Llandudno (15) and Newport (14).<sup>11</sup>

**In our draft report the Committee said:** The infrastructure in Wales for electric vehicles currently limited, in particular in terms of rapid chargers. Current infrastructure would struggle to cope with a significant increase in EVs. Coverage has been described as patchy, sporadic and at times unreliable. Payment and membership systems are confusing for customers and there has

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<sup>6</sup> [UK CCC Progress Report to Parliament 2018](#)

<sup>7</sup> [Consultation response 17: Institute of Welsh Affairs](#)

<sup>8</sup> [Consultation responses 2, 3 and 17](#)

<sup>9</sup> [OLEV Grant Schemes for Electric Vehicle Charging](#)

<sup>10</sup> [Letter from the Minister for Transport to the chair of the Committee, 17 June 2019](#)

<sup>11</sup> [Letter from the Minister for Transport to the chair of the Committee, 17 June 2019](#)

been little co-ordination in the roll out of charging facilities. The Welsh Government needs to ensure it has a clear picture of current charging infrastructure in Wales, including any gaps, and a clear vision for what it wants to achieve.

**14.** All participants in the Committee’s Dialogue discussion agreed that the current charging infrastructure in Wales is insufficient, with particular reference made to the lack of rapid charging facilities in rural Wales. They also referenced the impact this is having on tourism in Wales. Comments included:

“The on-line community (Speak EV) **regard Wales as a charging desert** and very backward compared with other parts of the UK and many indicated how they would love to visit if only the charging infrastructure was sufficient and reliable enough to be confident for a stress free family day out.” MRG

“Compared with other parts of the UK **Wales is so far behind the times** as regards to EV charging points its embarrassing. We are desperate for rapid chargers on all main roads through Wales, **we are losing out big time in tourism**, this has to change quickly.” Melvinolotus

**15.** In terms of the issue of payment, many participants stated a preference for new chargers to have a contactless method of payment or at least the ability to use a credit/debit card. They wanted new chargers to avoid the current complicated payment options of opening new accounts or memberships, paying by app, having a subscription fee and RFID (contactless chip card), or registering to a network:

“Coming to all this later the Welsh Government has the advantage of being able to avoid some of the pitfalls of earlier schemes with separate apps, membership feed, RFID card etc.” Andromedatwelve

**16.** The Welsh Government has been very clear that it expects the private sector to lead on rolling out infrastructure, with UK Government support where the market fails.<sup>12</sup> As part of the 2018-19 budget deal with Plaid Cymru, the Welsh Government committed £2m in funding to electric car charging points over two years (2018-19 and 2019-20).

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<sup>12</sup> “We expect that business and industry will drive much of the roll out of charging infrastructure but it is essential that the UK Government takes into account the differing geographical and economic context for the deployment of charging in more rural areas to ensure that no one is left behind in this transition”. – p 106, Policy 51 **Prosperity for All: A Low Carbon Wales**

**17.** Transport Minister Ken Skates challenged the idea that Wales is a charging “desert”. He said:

“I wouldn’t describe Wales as a desert insofar as charging points are concerned. (...) The main arteries are relatively well served—the A55 and the M4 in particular. It’s the gap in between that needs to be addressed, and that’s where we’re prioritising £2 million.”<sup>13</sup>

**18.** The Welsh Government is currently developing a Wales charging infrastructure strategy “to at least meet the demand created by 60% of new sales for cars and vans being electric vehicles by 2030”.<sup>14</sup> It acknowledges that more rapid and fast chargers will be required.

**19.** In evidence, the Minister’s officials were enthusiastic about the prospect of using Transport for Wales (TfW) – the Welsh Government’s wholly owned transport body – to procure charging infrastructure learning from the innovative techniques used for Superfast Broadband and the new Wales and Borders rail franchise. This process would involve the Welsh Government setting out its budget and main objectives, and inviting bids to deliver.

**Recommendation 1.** The Welsh Government’s policies and aspirations are pointing in the right direction, and while there has been a perceived lack of activity to date this could create opportunities to learn from what works elsewhere. It is vital now that the promised charging strategy is delivered in 2020, and supported by sufficient financial and political capital to ensure that the Minister’s vision can be turned into reality without delay.

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<sup>13</sup> Para 215, Economy Infrastructure and Skills Committee 15 May 2019

<sup>14</sup> Page 105 [Prosperity for All: A Low Carbon Wales](#)

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### 3. Leadership

**20.** Good leadership is essential if the opportunities afforded by a shift to electric cars are to be realised. Evidence received – in particular from DEG – has been critical of the Welsh Government’s failure to implement recommendations from the Low Carbon Expert Steering Group<sup>15</sup>, and the delay in spending the £2m agreed in the 2019 budget deal with Plaid Cymru.

**21.** The Transport Minister rejected suggestions from DEG that there was already market failure in Wales, and that a Wales-based not-for-profit company should be established to address this:

“I would strongly disagree with whoever has suggested that we shouldn’t take a market-led approach to this, because the alternative would be for the taxpayer to pay for quite expensive infrastructure—as I said earlier, the petrol stations of the twenty-first-century—which might, if you choose the wrong technology, become redundant quite soon. My view is that it makes far more sense in terms of utilising the public purse effectively to ensure that, where the market can and is willing to invest, it does so and that the taxpayer doesn’t foot the bill instead.”<sup>16</sup>

**22.** In the on-line discussion of the Committee’s draft report, there were contrasting views on the role of national and local government:

“The best ‘bang for buck’, in achieving a decent network is with a planned strategic approach, and the organization best placed to do that is the Welsh Government.” JohnS

“The Welsh Government can help by making it easier to get planning permission and requiring EV charging points at new construction.” AndrewF

“Four years of EV ownership on, I am not convinced that Governments (both local and National) should have any role in the actual deployment of rapid EV chargers. Given the cost of a rapid charger and its supporting infrastructure, £2m isn’t going to go very far and this leads to poor planning decisions.” Troff

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<sup>15</sup> [Low Carbon Vehicle Report](#), September 2015

<sup>16</sup> Para 307, Economy, Infrastructure and Skills Committee, 15 May 2019

“Welsh Government should support EV charging infrastructure in Wales since the private sector will never put the interests of Wales first and will be unlikely to invest in rural areas.” Glynhudson<sup>17</sup>

**23.** The role of local authorities was discussed extensively as part of the Dialogue, with comments including :

“Local authority car parks constitute a huge network covering the whole country. **All local authorities should be obliged to install charge points in car parks under their control.** It might also provide a source of income to hard pressed local authorities.” PhilipB

“If the Welsh Government provides funds to local councils for EV charging, they need to ensure the charge points go in locations useful to the general public or at least will be used by EVs owned by local councils.” AndrewF<sup>18</sup>

**24.** The Minister indicated that early thought was being given to how all public authorities, including health trusts and CADW, could use their land to support EV charging infrastructure.<sup>19</sup>

**25.** The clearest leadership Welsh Government could give is to lead by example. This would mean switching its vehicles to electric power at the earliest opportunity. The Committee recognises that leases and contracts will mean this is not possible overnight, but Welsh Government should give a clear lead to all public bodies that it expects all new contracts to set a positive example.

**Recommendation 2.** Welsh Government should lead by example among public bodies in Wales and switch its fleet of vehicles to electric and low emission vehicles at the earliest opportunity. It should also agree ambitious but realistic targets for all public sector fleets in Wales to switch, as proposed in Prosperity for All: A Low Carbon Wales.

**Recommendation 3.** The forthcoming Transport Strategy, expected in 2020 should ensure that the decarbonisation commitments already made by the Welsh Government are front and centre, and supported by the appropriate political leadership and financial investment to deliver a cleaner, greener transport network.

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<sup>17</sup> All quotes from the Committee’s on-line discussion forum

<sup>18</sup> All quotes from the Committee’s on-line discussion forum

<sup>19</sup> Para 314, Economy, Infrastructure and Skills Committee, 15 May 2019



## Working with stakeholders

**Recommendation 4.** The Welsh Government's engagement with stakeholders has been lacking – local government in particular has been critical of efforts to date. In his evidence the Minister recognised the importance of working in partnership with others and we expect to see progress in this area around the development and publication of the EV charging strategy.

## Private vs public funding

**26.** The Minister's position on the role of public funding in funding EV infrastructure will be frustrating to those who want to see progress at a faster rate – particularly in those rural areas which are at greatest risk of market failure.

**27.** However, at a time when public budgets have seen limited growth, his desire to deliver value for money is understandable. The Minister and his officials have cited Superfast Broadband as an example of effective intervention to address market failure. However, while successful in meeting its objectives, Superfast Cymru has been a source of great frustration for many thousands of individuals and communities who remain unable to access high-speed internet.

**Recommendation 5.** It is vital that the procurement of a TfW-led EV Charging network learns the lessons of Superfast Cymru (i.e. do not over-promise, communicate effectively, and ensure that where public investment creates private profit, there is a mechanism to share that benefit and increase the scope of the intervention).

## Car clubs

**28.** While there is widespread support for car clubs, our consultation found little support for Government intervention to promote them.

## 4. Barriers to EV uptake

**29.** Although the benefits of electric vehicles are significant, barriers to their uptake remain. The Committee's draft report cited:

- The relatively high cost of purchase of electric vehicles, and the absence of a second hand market;
- Range anxiety (fear of running out of charge due to lack of charging infrastructure); and
- The ability of the grid to support a large increase in electric vehicles.

**30.** Our consultation found little enthusiasm for the Welsh Government to intervene in the market for the sale of EVs.

### Range Anxiety

**31.** In the Committee's online discussion EV users said they were less prone to range anxiety than those thinking of making the switch:

"I live on Anglesey and have been driving a fully electric car since 2014. I do not have range anxiety. Range anxiety is something imagined by non-EV drivers. We know how far our car can go. Imagine a country with 5 petrol stations plus one at home. That is my world." AndrewF

**32.** Ways of improving the network for charging points are covered in the previous chapter, and will be addressed by the Welsh Government's initial plan to spend £2m, and in its forthcoming EV charging strategy.

### The Grid

**33.** The National Grid was clear in its evidence in December 2018 that it would be able to cope with an increase in EVs,<sup>20</sup> despite scepticism from other evidence providers. However, the Committee's further discussion raised questions about how the energy would be provided if switching to EVs was to make a difference to the decarbonisation of transport in Wales.

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<sup>20</sup> [Economy, Infrastructure and Skills Committee, 5 December 2018, para 19](#)

**34.** In their evidence DEG recommended that EV charging points should be co-located with renewable energy. This was supported by participants in the Dialogue discussion:

“Co-locating generation and consumption will help to reduce the grid load on local DNOs and connect users directly to the generation to give an appreciation of energy.” Glynhudson

“Any renewable energy project that received government funding/grants should be required (where possible) to install an EV charger alongside the generation. EV charging discounts could be given at times of high renewable generation.” Glynhudson<sup>21</sup>

**35.** Scottish Power Energy Networks (SPEN) is the District Network Operator (DNO) for North Wales. It wrote to the Committee following publication of our draft report offering an insight in to how DNOs are dealing with EVs. SPEN’s submission refers to its CHARGE project, which “aims to accelerate the wide-scale adoption of electric vehicles and help meet the UK Government’s ambitious climate change and air pollution targets”. SPEN says the project aims to merge transport and electricity network planning to create an over-arching map of where EV charge points will be required and where they can be accommodated by the electricity distribution network. It says it will be disseminating information to its customers on how to connect EV charging points, with particular emphasis on community groups who are first time customers and “therefore less knowledgeable about our connection processes”.

**36.** In its draft report the Committee noted:

**Emerging conclusion 8:** The Welsh Government must work closely with the National Grid and District Network Operators to ensure the grid can be developed to accommodate its aspirations for EV charging in Wales.

**37.** The Minister acknowledged this and stressed his desire that additional calls on the grid should be met “where and whenever possible, (...) utilising renewable energy at a local source, and that could have, in turn, spin-off benefits for the communities that they’re based in”.<sup>22</sup>

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<sup>21</sup> All quotes from the Committee’s on-line discussion forum

<sup>22</sup> Para 310, Economy, Infrastructure and Skills Committee, 15 May 2019.

## 5. Planning for new infrastructure

**38.** A number of participants in the Dialogue discussion talked about planning policy. One suggested it should be mandatory for all new builds and new developments to install charging points integrated with lighting columns. Another said:

“New build housing developments should be required to provide low speed EV charging bays for residents. This needs to be flexible and suitable for the type of residence.” Andrew<sup>F23</sup>

**39.** The recently published Planning Policy Wales 10<sup>24</sup> (PPW 10) contains a new policy on ultra-low emission vehicles, which requires new non-residential developments to have charging points in at least 10% of the parking spaces available. The low carbon plan says this is the first national policy of its kind in the UK. The Committee would like to see this taken further.

**40.** In his supplementary evidence the Minister said:

“With regards to the planning aspect of EV charging points in Wales, recent amendments to the Energy Performance of Buildings Directive must be transposed by spring 2020. The Directive amendments set out electric vehicle recharging point infrastructure requirements for certain residential and non-residential developments. Our current intentions are to transpose these requirements through our devolved Building Regulation powers.”<sup>25</sup>

**Recommendation 6.** The requirement in Planning Policy Wales 10 that new non-residential developments should have charging points in at least 10% of the parking spaces available, should be extended to include residential developments. Consideration must also be given to raising the percentage of parking spaces with charging points, as EVs become more prevalent.

**41.** Many areas of Wales are characterised by terraced housing with no off-street parking. This presents a challenge for residents wishing to make the switch to electric vehicles. In August 2019 the UK Government increased the funding

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<sup>23</sup> Quotes from the Committee’s on-line discussion forum

<sup>24</sup> <https://gov.wales/sites/default/files/publications/2019-02/planning-policy-wales-edition-10.pdf>

<sup>25</sup> Letter from Minister for Economy and Transport, EIS(5)-18-19(P1),17 July 2019

available to Local Authorities to support its on-street residential chargepoint scheme.

**Recommendation 7.** Welsh Government should proactively encourage and support local authorities in Wales to maximise uptake of UK Government grants to support new charging points. This could include requiring successful local authorities to share best practice on bidding with others.

## 6. Urban / rural divide

**42.** The Committee was keen in its draft report to ensure that the switch to EVs was possible in all parts of Wales, not just in urban areas.

**43.** The National Grid pointed out that it was important to ensure rural areas were not overlooked, saying:

“Wherever you’ve seen a disruptive technology, if you leave it purely to market what generally happens is that towns and cities get done, and everybody else becomes a second class citizen.”<sup>26</sup>

**44.** In his evidence the Minister pointed out that a regional transport decarbonisation project was part of the North Wales Growth Deal. The Committee will be keen to see the outcomes from this project.

**45.** There was discussion relating to rural charging infrastructure as part of the online Dialogue, with participants recommending a number of options:

“EV’s can play a significant role in rural areas since the lower running costs can help tackle fuel poverty. Also rural locations are more likely to have driveways which make home charging easier. Rapid chargers should be installed in rural locations to make rural EV ownership viable and encourage EV tourism.”Glynhudson

“There are now several companies providing chargers in partnership with owners of real estate for instance Podpoint with Tesco, Marston Inns with Eugenie and several companies with Lidl. All these companies have a significant presence across Wales including in more rural areas. The Welsh government should be contacting these companies and reassuring them that issues like planning permission, infrastructure requirement etc. will be handled by the Government, so making these locations more attractive.” Andromedatwelve

“With only £2million to spend, Welsh Government funded chargers need to be placed where private vendors aren’t going to put them. Wales badly need to fill in the en-route charging holes. Many en-route chargers need to go in remote locations where there aren’t large supermarkets or even that many petrol stations. If you’ve driven from

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<sup>26</sup> [Economy, Infrastructure and Skills Committee, 5 December 2018](#), para 122

Caernarfon to Carmarthen or Conwy to Crossgates you know what I mean.” AndrewF<sup>27</sup>

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<sup>27</sup> All quotes from the Committee’s on-line discussion forum

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## 7. Approach in Scotland

**46.** The Committee is grateful to Rhun Ap Iorwerth AM for submitting his report, *Driving Change: Scottish Lessons for Wales' EV Future*, for the committee's consideration. Rhun Ap Iorwerth visited Scotland in March 2019, meeting officials from the Scottish Government and Dundee City Council. He also led an Assembly debate<sup>28</sup> calling for a bill to promote the use of EVs in the public sector on 15 May 2019.

**47.** His report notes that Transport for Scotland developed a "Roadmap"<sup>29</sup> for the development of EV charging infrastructure in 2013. The Scottish Government invested £14m in 2013-15 to support work across the low carbon vehicle agenda, investing £8m in charging infrastructure through the UK Government-backed Plugged in Places<sup>30</sup> scheme. It deployed rapid charge points at intervals of no more than 50 miles on the country's primary road network to enable extended all-electric journeys.

**48.** To encourage uptake at a local level, Scottish Government and local authorities used local planning, parking and traffic management powers to encourage adoption of plug-in vehicles, offering 100% funding for the installation of home charge points and used procurement policies to support the adoption of plug-in vehicles in council and taxi fleets.

### The role of the Energy Saving Trust

**49.** In Scotland, motorists can apply to the Energy Saving Trust (EST) for 100% funding to install a home charge point for their EV. Scottish-based businesses can also access an interest free loan of up to £50,000 for EVs, with a repayment term of up to six years. Transport Scotland statistics quoted in the report show that 1,928 domestic charging points have been installed with EST funding since 2012. The report identifies that, whilst the EST does operate in Wales, it does not appear to be undertaking specific EV work.

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<sup>28</sup> [record.assembly.wales/Plenary/5657#A50954](https://record.assembly.wales/Plenary/5657#A50954)

<sup>29</sup> [www.transport.gov.scot/publication/switched-on-scotland-a-roadmap-to-widespread-adoption-of-plug-in-vehicles-review/](https://www.transport.gov.scot/publication/switched-on-scotland-a-roadmap-to-widespread-adoption-of-plug-in-vehicles-review/)

<sup>30</sup> [www.gov.uk/government/publications/plugged-in-places](https://www.gov.uk/government/publications/plugged-in-places)



## ChargePlace Scotland

**50.** ChargePlace Scotland<sup>31</sup> (CPS) is the national network of charging points in Scotland. There are nearly 1,000 publicly available charge points on the CPS network, including over 174 50kW rapid chargers. The Scottish Government fully subsidises the electricity usage from these charge points. Figures from the report show that the Scottish Government has invested over £15m in the development of the CPS since 2012, and is planning a further £15m investment for 2018/19. Grants are offered to local authorities to install chargers either on public land or in their own depots to support their EV fleet vehicles.

**51.** CPS provides a “back office” system for all Scottish charge points funded by the Scottish Government, regardless of who is the provider of the charge point. Functions include: a 24-hour customer service helpdesk; charging website and map; remote repair of minor faults; a single Scotland-wide payment card; and data gathering which can be used to map demand.

## Welsh Government view

**52.** When asked about learning from Scotland, the Minister said:

“Scotland intervened early. There’s obviously the question to be asked: was the intervention necessary? However, the intervention was successful, and ... there are lessons that we can, and will, learn from Scotland. We’re already engaged very closely with Transport for Scotland in making sure that, as we develop a system that we think is suitable for Wales and that minimises the taxpayer’s investment and instead introduces a greater degree of investment from the private sector—we think the Scottish model will be able to offer some good lessons.”<sup>32</sup>

**Recommendation 8.** Welsh local authorities should consider whether the local incentives proposed by Scottish Chief Officers of Transportation would be effective in their areas.

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<sup>31</sup> <https://chargeplacescotland.org/>

<sup>32</sup> Para 310, Economy, Infrastructure and Skills Committee, 15 May 2019.

## Annex: Witnesses

Date	Name and Organisation
29 November 2018	Dr Liana Cipcigan, Cardiff University Shea Jones, Institute of Welsh Affairs Neil Lewis, Carmarthenshire Energy
5 December 2018	Graeme Cooper, National Grid Roger Hey, Western Power Distribution
15 May 2019	Ken Skates AM, Minister for Economy & Transport Simon Jones, Welsh Government Dewi Rowlands, Welsh Government