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ECONOMY, INFRASTRUCTURE AND SKILLS COMMITTEE
WRITTEN EVIDENCE
EVIDENCE SESSION ON ELECTRIC VEHICLE CHARGING IN WALES
WEDNESDAY 15 MAY 2019

Purpose

The purpose of this paper is to provide a response to the Economy, Infrastructure and Skills Committee report: Electric Vehicle Charging Infrastructure

Response

We welcome the draft report and thank the committee for their work.

Prosperity for All: A Low Carbon Wales[1] signifies our commitment to transition to a low carbon economy in line with the Environment (Wales) Act 2016 requirement to reduce emissions of greenhouse gases (GHGs) in Wales, by at least 80% for the year 2050. It describes how the Welsh Government is putting Wales at the forefront of a shift towards active travel and a low carbon public transport system, which is accessible to all and contributes to liveable and sustainable communities.

The plan includes nine policies and four proposals (proposals are for ideas - further development) relating to the transport sector pathway, including policies to increase the proportion of vehicles which are electric and ultra low emission, a bold ambition for a zero emission bus and taxi/private by 2028 and proposals to promote the decarbonisation of the Private Sector fleet in Wales. In addition, it also includes a proposal in the Public Sector Chapter that all new cars and light goods vehicles in the Public Sector fleet are ultra low emission by 2025.

Policy 51 sets out that the Welsh Government will 'Plan for and invest in EV charging infrastructure'. We will work with UK Government, local authorities, the energy sector and business to plan for and implement the roll out of EV charging infrastructure. Lack of charging infrastructure should not be a barrier to EV uptake in Wales.

We expect that business and industry will drive much of the roll out of charging infrastructure. However, it is essential that we and the UK Government take account of the differing geographical and economic context for the deployment, to ensure that no one is left behind in the transition to electric vehicles.

The Road to Zero[2] strategy sets out how the UK Government will support the deployment of charging infrastructure throughout the UK, through initiatives such as the £400 million Charging Infrastructure Investment Fund. We will work to encourage the uptake in Wales of UK Government grants such as the Electric Vehicle Homecharge Scheme, the Workplace Charging Scheme and the On-street Residential Chargepoint Scheme, offered by the Office for Low Emission Vehicles (OLEV).

[1] https://gweddill.gov.wales/docs/desh/publications/190321-prosperity-for-all-a-low-carbon-wales-en.pdf
[2] https://www.gov.uk/government/publications/reducing-emissions-from-road-transport-road-to-zero-strategy

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The requirement for and provision of charging infrastructure in Wales

There were just over 4,000 battery electric and plug in hybrid vehicles (EVs) registered in Wales at the end of Quarter 4 2018[3]. This represents an increase from just fewer than 3,000 at a similar point in 2017. Of the 4,000 vehicles 3,640 were cars, representing 0.23% of the 1.56m cars in Wales. As a comparison, Scotland has 10,000 electric cars representing 0.34% of their 2.9m cars. There were 760 new registrations of electric vehicles in Wales in 2017, compared to 2,435 in Scotland[4].

A number of factors will influence the uptake of electric vehicles, however, the availability of a convenient chargepoint is undoubtedly one of the factors. Fuel and maintenance costs for electric vehicles are already lower than petrol and diesel equivalents, making them attractive to fleet buyers. It is likely that the purchase price of new electric vehicles will reach near parity with equivalent petrol or diesel cars in the first half of the 2020s, certainly with the retention of Government incentives for purchases. This will have a transformative impact on the market for electric vehicles, as has been the case for markets such as Norway.

As stated in Prosperity for All: A Low Carbon Wales, we will set out a strategy, for publicly available charging infrastructure, to at least meet the demand created by 60% of new sales for cars and vans being electric vehicles by 2030.

Development of a Wales charging infrastructure strategy

The strategy will aim to scope out the context for Welsh Government intervention in the provision of electric vehicle charging infrastructure. The development of a strategy will necessarily include significant consultation with local authorities, those engaged in the provision of EV chargers and the energy sector.

As acknowledged in the Committee's draft report there is a need to ensure that public funds are spent where there is clear evidence of market failure. Our engagement with charging providers and recent announcements in the press, suggests that the provision of charging infrastructure is approaching greater commercial maturity. There is an argument that the phase of development dependent largely on public subsidy, which Scotland has implemented effectively with the roll-out of the ChargePlace Scotland network, is now at an end. Future roll-out will take into account a more mature commercial context.

Planning for charging infrastructure is complex and battery technology, influencing vehicle range and the ability to cope with higher speed charging, is evolving rapidly. The behaviours and preferences of vehicle owners is also a variable which is difficult to predict. The strategy will look at current and potential future technology, funding programmes, the pipeline of investments by the private and public sector, and will apply these to a variety of charging requirements and scenarios as follows.

[3] https://www.gov.uk/government/statistical-data-sets/all-vehicles-veh01#ultra-low-emissions-vehicles
[4] https://www.transport.gov.scot/publication/scottish-transport-statistics-no-37-2018-edition/sct01193326941-16/

- En route charging network

We agree with the Committee's emerging conclusion that there is a need for more charging infrastructure for electric vehicles in Wales, in particular rapid chargers away from the M4 and A55 corridors. This is our first priority, and we will utilise the £2m allocated as part of the budget agreement with Plaid Cymru for the roll out of a rapid charging network. Although a key requirement to address 'range anxiety', it is not anticipated that the number of charging sites required will be significant, possibly five or six sites. Although these will likely be hubs, hosting multiple chargers, offering various charging speeds suitable for multiple vehicle types.

- Home charging

For EV owners with the opportunity to charge at home, this is clearly the most convenient and almost certainly the most cost effective method of charging. 67% of dwellings in Wales have off-street parking[5] and could likely utilise this for charging overnight. The provision of home chargepoints is supported by grants from the Office for Low Emission Vehicles (OLEV). The OLEV grant is now mandating the use of smart chargers with the ability to balance out the peaks and troughs of energy generation. We recognise the potential of home charging to increase the awareness and utility of renewable energy production.

- Workplace charging

For those without the ability to charge at home, workplace charging could offer a convenient alternative. We will encourage the uptake of Workplace Charging Scheme grant from OLEV. The potential for workplaces to allow public to access these facilities when they are not used by employees should also be explored as a potential revenue stream.

- Destination/parking based charging

We recognise that chargepoints at car parks, leisure and shopping amenities etc. are beneficial for those that don't have off street parking as well as for those who want to take an opportunity to top up their batteries. Businesses are now seeing the potential to attract customers by placing charging facilities near their premises.

Planning Policy Wales (PPW) includes a policy to encourage the uptake of Electric Vehicles. A minimum of 10% of non-residential car parking spaces are required to have EV charging points. Working with Transport for Wales we will assess the potential for charging at many of Wales' 250 railway stations. We will also work with Local Authorities to map out charging at other public sector sites. Many of these sites will be attractive to chargepoint providers.

[5] Welsh Housing Conditions Survey 2017-18, Welsh Government

The Office for Low Emission Vehicles (OLEV) has an 'On-Street Residential Grant Scheme' to provide local authorities with part funding for the installation of on-street electric vehicle chargepoint infrastructure. Cardiff has been successful in attracting funding for one such scheme and we will look to learn lessons from this trial.

- Bus, Taxi and Private Hire Vehicle charging

We will assess the requirement for rapid chargers to facilitate the transition to a cleaner taxi/PHV fleet learning from experiences elsewhere such as in London. We will also explore the potential to co-locate the significant charging requirement for buses with charging hubs for other uses such as private cars.

- Charging for fleets

We will look to advise fleets on charging requirements and co-ordinate practice as part of our commitments to promote the decarbonisation of public and private fleets as referenced in Prosperity for All: A Low Carbon Wales.

Grid capacity

We agree with the Committee's emerging conclusion that Welsh Government must work closely with the National Grid and District Network Operators to ensure the grid can accommodate EV charging in Wales.

We are working with stakeholders on local energy strategies, and with network operators, Scottish Power Energy Networks and Western Power Distribution on their innovation pilots. Scottish Power Energy Networks' Project CHARGE is an £8.5 million project which will enable a better understanding of network requirements to support Electric Vehicles, using the SP Manweb area as a case study to test how to deploy EV charging infrastructure.

It is also vital that we ensure the increased demand for electricity from the electrification of transport is met by renewable energy to secure decarbonisation outcomes. Welsh Government is keen to maximise the potential for increased demand for power to be served by locally owned generation in Wales.