

Cynulliad Cenedlaethol Cymru
Pwyllgor yr Economi, Seilwaith a
Sgiliau
Ddatgarboneiddio trafnidiaeth
EIS(5)DT17
Ymateb gan Cardiff Community
Energy

National Assembly for Wales
Economy, Infrastructure and Skills
Committee
Decarbonisation of Transport

Evidence from Cardiff Community
Energy

About you

Cardiff Community Energy

Your opinion

- 1. Are the transport emissions reductions targets, policies and proposals (set out in Prosperity for All: A Low Carbon Wales) achievable and sufficiently ambitious?**

Partly

1.1 Please outline your reasons for your answer to question 1

“Prosperity for All: A Low Carbon Wales” listed two proposals relevant to decarbonising transport.

- All new cars and light goods vehicles in the Public Sector fleet are ultra low emission by 2025 and where practicably possible, all heavy goods are ultra low emission by 2030
- Promote the decarbonisation of private sector fleets in Wales

These need to be converted from proposals to policies.

Most new public sector fleet cars and light goods vehicles should be electric starting in 2020. Exceptions should only be allowed where the particular use gives major range issues which cannot be addressed so quickly. Heavy goods vehicles are more challenging and the proposal presumably meant all new (public sector) heavy goods vehicles are ultra-low emission by 2030. This will depend on vehicle development, but by 2030 it is quite likely that it will be practical for all new HGVs to be ULVs. Vehicles for collection of recyclables and waste are a good candidate for much earlier take-up of EVs because of their slow, stop, start operation. Electric recycling collection vehicles should be trialled now and most new ones should be electric by 2025 or earlier.

<https://www.veolia.co.uk/press-releases/veolia-trial-electric-refuse-collection-vehicles>

<https://resource.co/article/city-london-introduce-all-electric-waste-collection-fleet-13168>

“Promoting the decarbonisation of private sector fleets” gives no indication of how this might be done but this will be covered in our response to your later “What action is required” question.

The following two policies

- Aiming to reduce the carbon footprint of buses to zero by 2028
- Aim to reduce the carbon footprint of Taxis and Private Hire Vehicles to zero by 2028 Are achievable and sufficiently ambitious but require on-going effective processes that must start as soon as possible.

2. Is the Welsh Government’s vision for the decarbonisation of transport sufficiently innovative, particularly in terms of advocating new technologies?

Partly

2.1 Please outline your reasons for your answer to question 2

Land transport

Innovation is required in a whole ecosystem of EVs, vehicle to grid chargers, distributed (roof-top and car-port) solar PV and static batteries – not so much in any of the components, but in large trials of how they can interrelate and also ownership and financial models. Promotion of leasing of EVs would remove worries about maintenance, resale value, obsolescence, battery lifetime and participation in vehicle to grid services. Solar carports, static batteries and EV leasing have potential for not-for-profit public/community ownership. The Green Valley lines project looking at using local solar and wind power for electrified rail lines should be extended across Wales.

Air transport

Short – haul electric light aircraft are very close to availability.

<https://www.eviation.co/>

Welsh Government should look at the feasibility of making the Cardiff – Anglesey air link an electric service.

Airbus is working on development of a hybrid electric airliner which may be released around 2035.

<https://www.airbus.com/newsroom/news/en/2018/07/the-future-is-electric.html>

<https://www.bloomberg.com/news/articles/2019-06-13/airbus-may-make-the-next-version-of-its-top-selling-jet-a-hybrid>

Welsh Government should say that once these are available then airports in Wales will present non-hybrid airliners initially with deterrents and later with a complete ban (other than emergency landings of course).

Shipping

All Welsh ports should all be equipped with shore-to-ship power so that docked vessels can run on shore-supplied electricity rather than running their engines in port. Ships not equipped to use this should then be faced initially with deterrents and later with a complete ban (other than in emergencies).

Potential for promoting the take up of wind-assisted propulsion by Welsh based or owned shipping should be investigated.

<https://www.maritime-executive.com/article/flettner-rotor-exceeds-expectations>

<https://www.neoline.eu/en/>

3. What action is required, and by whom, to achieve the targets, policies and objectives?

All new buses and taxis for use in Air Quality Management Areas should be zero emission EVs starting in 2020. The lifetime costs for these are already close to those for diesel equivalents. The high capital cost of EVs is offset over their lifetime by lower costs for fuel and maintenance. However the high capital cost of EVs and charging infrastructure is a barrier to their adoption. The UK government financial support for electric buses over the next three years recently won by operators in Wales is very welcome. However no more UK Government financial support for electric buses is to be expected during those three years and none is scheduled as yet to follow afterwards.

We propose that Welsh Government should establish a low or zero interest revolving loan fund to support the purchase of electric buses for use in AQMAs in Wales, as well as the necessary charging infrastructure. Repayments should be structured so as to equal the savings in operating costs. The Salix loan scheme for energy efficiency projects could serve as a model for this.

As well as promoting the take-up of new electric buses there should be a study of the comparative cost-effectiveness of converting newer diesel buses to EVs.

<http://www.magtec-evbus.com/>

There is also a need for expertise to be made available to bus operators preparing to apply for electric bus loans and this should be a national Joint Transport Authority function.

Local Authorities that have AQMAs should be looking to set up clean air zones and as part of this, buses, taxis and other commercial vehicles that are not zero emission EVs should be restricted or excluded from those zones.

There is a need for expertise to be made available to urban local authorities preparing to set up clean air zones and this should also be a national JTA function.

Over time the high capital cost of electric buses is expected to decline as battery costs continue to fall. Once all buses used in AQMAs are electric then the transition to electric buses should be extended to all urban buses and then to all buses in Wales.

As electric buses are introduced, the retirement of the most polluting vehicles of the diesel fleet should be prioritised. If a bus operator is introducing an electric bus but does not have any of the most polluting category of diesel bus in the country in its fleet, then it could be appropriate for them to transfer one of the worst buses that they have to another operator who can use it to take an even worse vehicle out of use.

There might be a case for a national scheme to facilitate such transfers.

Taxis

A national minimum standard is desirable. However, there is a very strong case for moving more rapidly to a zero emission electric vehicle requirement for taxis and PHVs that are to be used in Air Quality Management Areas. We note that at present a taxi or PHV can operate anywhere. Local Authorities that have AQMAs should be looking to set up clean air zones and as part of this taxis and PHVs that are not zero emission EVs should be restricted or excluded from those zones. With this in mind there is a case for having an EV standard and another less demanding standard for use outside clean air zones. In time of course, of all of Wales should in effect become a clean air zone and then only one EV standard for taxis and PHVs will apply.

Feasibility studies should be carried out on solar carports for park and ride sites.

- Encourage people to use park and ride (with rain and sun shelter and EV charging)
- Encourage transition to EVs (with charging points)
- Contribute to Welsh Government 1 GW of local renewable energy goal.

Once feasibility studies have been carried out on solar carports for all park and ride sites then the feasibility studies should be extended to all public sector car parks.

Building Research Establishment (who have published an excellent guide to solar carports) should be invited to talk at open events for car park operators (public and private sector) across Wales about the potential for solar carports on open-top multi-storey car parks and ground based car parks. This should include health boards and organisations which have large employee car parks.

<https://www.bregroup.com/wp-content/uploads/2018/04/100507-BRE-solar-car-park-technical-guide-A4-32pp-nocrop-LR.pdf>

EV car (and light van) clubs should be rolled out across Wales as they would get more people to experience EVs (it is often said anecdotally that people have reservations about EVs until they have driven one – and are then converts), as well as potentially leading some people to feel that they no longer need to own a car.

Salix-style loans should be considered for:

All EVs, charging infrastructure, solar carports, static batteries when integrated with solar carports, shore to ship power and electric water buses. Local Authorities should host EV promotion events with E buses, E taxis, E cars (test drives!), E bikes, Fitters of EV chargers etc. all on show to the public.