#### EVC9 Sefydliad y Peirianwyr Sifil (Saesneg yn unig)

#### Senedd Cymru | Welsh Parliament

Pwyllgor Newid Hinsawdd, yr Amgylchedd a Seilwaith | Climate Change, Environment and Infrastructure Committee

Gwefru cerbydau trydan | Electric vehicle charging

Ymateb gan Sefydliad y Peirianwyr Sifil | Evidence from Institution of Civil Engineers (ICE)

### 1. Beth yw eich barn am y Cynllun Gweithredu?

The vision - 'By 2025, all users of electric cars and vans in Wales are confident that they can access electric vehicle charging infrastructure when and where they need it' is a good one. The 3-year timescale is demanding but much will depend on the growth in EVs. There are currently 1.5 million cars in Wales and most of these run-on petrol or diesel. The renewal rate is modest (circa 110,000 new registrations per annum) and the proportion of EVs is still very small. Putting the infrastructure in place is challenging enough but to succeed, drivers will need to be confident that they can conveniently access a suitable charger when and where they need it.

## 2. Beth yw eich barn am y cynnydd a wnaed yn erbyn Cam Gweithredu 1: Seilwaith gwefru?

This is a crucial part of the plan, a small amount of progress has been made with EV charging points beginning to appear on the trunk and local road networks, at railway stations, rest areas, petrol filling stations, supermarkets, farm shops and prestige hotels. But questions arise about the availability of chargers, the cost of using chargers and the time needed to fully recharge a depleted battery. It is important to have a suitable and robust charging hub in the Mid Wales area near the A470 to serve North-South Wales travelling and ensuring that there are a range of chargers to suit all types of EVs readily available.

# 3. Beth yw eich barn am y cynnydd a wnaed yn erbyn Cam Gweithredu 2: Optimeiddio'r ddarpariaeth ynni?

We note the Welsh government's intention to establish a connections group and to work with its partners to maximise the availability of power. We suspect that national and local power distribution networks will need to be enhanced to deliver electricity to charging hubs and that these will need to be located where the demand is likely to be greatest (that is in urban areas and on the strategic road network).

# 4. Beth yw eich barn am y cynnydd a wnaed yn erbyn Cam Gweithredu 3: Gwella'r ddarpariaeth gwefru chwim?

Only Tesla, it would appear, has established a network of rapid chargers across Wales. We understand that those situated at service stations and charging hubs on the M4 are heavily used and

not always available when required. Again, the only Rapid Chargers in Mid Wales are located in Aberystwyth not convenient for the North-South Wales traveller using the A470.

### Beth yw eich barn am y cynnydd a wnaed yn erbyn Cam Gweithredu 4: Safonau ansawdd Cymru?

We look forward and with interest, to seeing the Quality Standard that has been promised by Welsh government and which we are told is to be developed with its delivery partners.

### Beth yw eich barn am y cynnydd a wnaed yn erbyn Cam Gweithredu 5: Hwyluso rheoleiddioll?

We note that Welsh Government policy and regulations will be kept under review to support electric vehicle charging. This will include whether any further measures can be taken to support local and regional spatial planning and a framework for strategic and local development plans. It would appear appropriate to review building regulations to support the provision of home and workplace charging across Wales for both refurbishment and new build projects. And to work with the electricity industry to facilitate a further review of the requirements for electrical supply to buildings for future resilience that incorporates potential charging needs.

## Beth yw eich barn am y cynnydd a wnaed yn erbyn Cam Gweithredu 6: Partneriaeth a chydweithio?

We look forward to progress being made in this critical area. Coordination of charge point operators in determining suitable locations is key to delivering the WG's vision of the electric vehicle charging network across Wales. We note that the Welsh Government will establish a charge point operator working group involving private, public, not-for profit and community organisations in pursuit of this aim. We are not aware what progress, if any, has been made.

## Beth yw eich barn am y cynnydd a wnaed yn erbyn Cam Gweithredu 7: Cynyddu ymwybyddiaeth gyhoeddus?

The public are aware of the Welsh Government's decarbonisation and transport aims and objectives, but many remain to be convinced of the need to buy an EV. And affordability is a major issue for many/most. We suspect that the public are not generally aware of the limited availability of charging points in Wales. Nor of the time needed to fully charge a depleted battery. The charging points also need to be made much more visible to the public; they are often located in obscure locations and not well signed.

## Beth yw eich barn am y cynnydd a wnaed yn erbyn Cam Gweithredu 8: Annog cyfleoedd i fuddsoddi ac arloesi?

Investment to date appears to be largely driven by self-interest (Transport for Wales and Tesla). There would appear to be development opportunities for business associated with EV charging. That is in relation to the availability of chargers and the time needed to fully recharge a car's battery from empty or increase the vehicle range to reach the user's destination There are a few companies in Wales manufacturing Carport solar panel charging. This should be promoted for carparks particularly workplaces which would enhance the EV charging infrastructure and assist with energy provision.

## Beth yw eich barn am y cynnydd a wnaed yn erbyn Cam Gweithredu 9: Creu synergedd?

Whilst recognising that there are opportunities to be gained by stakeholders working in partnership, we are not aware of any progress made in this area. Regular progress reports would be helpful.

### Beth yw eich barn am y Strategaeth?

It is a good strategy but for it to succeed customers (and suppliers) will need to be confident that the benefits of buying and or running an EV will outweigh the costs and risks. EVs are expensive and, as we have said before, affordability is an issue for many.

## Oes gennych chi unrhyw sylwadau eraill yr hoffech eu gwneud o fewn cwmpas yr ymchwiliad hwn?

We understand that there are circa 1.6m registered cars and vans in Wales and that circa 111,000 new vehicles were registered in 2001. Only a small (but increasing) proportion of these were EVs. At this rate it will take circa 15 years to replace Wales' fleet of cars and vans. That is until 2038 or thereabouts. And of course, there are likely to be plenty of petrol and diesel-powered vehicles in use at that time. There are a number of operators providing EV charging stations in Wales at present such as Pod Point, Shell Recharge and InstaVolt to name a few, We believe that they should be standardised and regulated to allow consistency in energy cost and ease of operating by the customer.