

ChargePoint Network UK.

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EC4Y 0DH London

ELECTRIC VEHICLE CHARGING IN WALES

A CONSULTATION RESPONSE BY CHARGEPOINT

ChargePoint welcomes the opportunity to respond to the Economy, Infrastructure and Skills Committee's inquiry into EV Charging in Wales. More and more consumers are now electing to drive electric vehicles, a trend which will continue as the market develops and production costs continue to fall.

ChargePoint is the leading electric vehicle (EV) charging network in the world, providing charging solutions for home, workplace, motorway and destination charging. With more than 50,000 independently owned public and semi-public charging spots, and thousands of customers including businesses, cities, agencies and service providers, ChargePoint is the only charging technology company on the market that designs, develops and manufactures hardware and software solutions across every EV category.

To understand the current charging infrastructure in Wales, and to what extent it is fit for purpose

Relative to the rest of the UK, there is currently very little charging infrastructure in Wales, which is curtailing adoption of EVs by consumers and businesses. In particular short supply are 50kW DC chargers in urban locations and destination chargers in cities, which ChargePoint's experience has shown to be key to successful adoption by consumers.

Looking at public charging station databases such as ZapMap shows that a significant number of stations in Wales are not operational. This suggests that the network has some way to go before being able to accommodate a significant uptake in EVs. A non-operational network curtails EV adoption as prospective EV drivers are not given the confidence required to, and current EV drivers are prevented from undertaking journeys with confidence.

Other factors affecting range anxiety which are found across the UK are also evident in Wales. These include:

- Open access payment; currently, payments are not transparent, there is no standardised point of sale pricing information and users are unsure whether charge points require membership or are pay-as-you-go.
- A robust infrastructure network for fleets including buses, taxis and commercial vehicles which can accommodate increased demand at peak times. At present there are very few electric variants of these vehicles in Wales; if Wales is to meet the national Road to Zero target for 40% of new van sales to be electric by 2030 a planned approach to the development of charging infrastructure and supporting framework is urgently required.



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How the infrastructure needs to develop to support an increase in EVs on our roads

At present, the Local Authority-led rollout of charging stations means that Wales has a series of disjointed networks with a number of different providers operating charging stations. This does not work well for drivers. Consumers usually drive between local authority areas rather than purely within them. A patchwork network of charging stations which require different memberships and payment methods is a strong inconvenience, which acts as a barrier to uptake of EV.

As an alternative model, Wales could consider taking a national approach to charging infrastructure, similar to Scotland, whereby a national network is operated under license by a private company for a contracted period. Equally, as drivers in Wales often drive to and from England, a degree of alignment with neighbouring English charging networks would be worthwhile.

Ultimately, consumers benefit from a charging infrastructure market underpinned by innovation, competition and customer choice. There are a number of immediate actions which the Welsh Government can take in order to influence market growth:

- Ensure that all existing charging stations are fully functional and operational. The ChargePoint-powered InstaVolt network is typically 100% operational on any given day thanks to dedicated maintenance engineers and technology enabling early diagnosis of faults. This provides current and prospective EV drivers with confidence to undertake their journeys.
- Deploying more smart and rapid chargers in key locations. There should be a view to phasing out 7kW chargers in public locations, which will take over 18 hours to charge the new generation of larger battery electric vehicles.
- Future-proof the location of new chargers by creating hubs of several chargers where possible; isolated chargers on roadsides are likely to soon become overloaded as the market develops, leading to customer dissatisfaction. The Welsh Government should work with Distribution Network Operators to support the delivery of charging hubs.

Finally, ChargePoint's experience from other markets, particularly North America where it has in the region of 40% market share of EV charging spots, shows that Government and the wider public sector should leverage their presence and lead by example to drive demand for EVs and charging infrastructure. This can be achieved by:

- Mandating where possible the use of EVs in public sector fleets and developing depot hubs for their charging;
- Mandating the installation of charging points on Local Authority land including council offices, leisure centres, libraries and schools;



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- Strongly encouraging electrification of private sector fleets regulated by or contracted by the public sector, including taxis, housing association vehicles, highways maintenance logistics vehicles and so on, complete with corresponding dedicated charging networks.
- Mass deployment of on-street residential charging stations so residents living in built-up areas have access to chargers;
- Encouraging Local Authorities to introduce zero-emission zones and streets in city centres.

How the Welsh Government, private sector and third sector can work together to develop EV charging infrastructure;

ChargePoint is eager to support the Welsh Government, fleet operators and consumers to supply a user-friendly, reliable charging network. This includes all categories of smart and rapid chargers, as well as the technology which underpins a network which is fully operational.

Having developed market leading expertise in the USA and more recent expansion into the UK and Europe, ChargePoint is ready to partner with Governments to help deploy a charging network which is fit for the future.

Whether the electricity grid in Wales is able to deal with a significant increase in EV infrastructure, particularly in rural areas;

ChargePoint is not in a position to comment on this.

To what extent the Welsh Government has acted upon the recommendations in the Low Carbon Vehicle Report;

There are a number of recommendations made in the Low Carbon Vehicle report which would contribute positively to the development of the EV charging environment in Wales. However, to avoid over-complicating the task at hand, ChargePoint recommend two simple and achievable actions which will facilitate market growth:

- A network which is fully operational, to provide confidence to current and prospective drivers.
- Ensuring consistency in Government policy. This would be a cost neutral exercise. Consistency between Local Authorities, Welsh Government and Westminster Government would provide the sector with confidence and certainty, ensuring that all parts of industry are working together toward the same goals.



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To explore the potential for electric vehicles to promote behaviour change, for example in terms of vehicle ownership and car sharing initiatives; and

ChargePoint understand that modes of vehicle ownership are likely to radically transform in coming decades due to simple market economics. In the long-term, the majority of vehicles will be both electric and autonomous. Exclusive ownership will decline; many people will lease a vehicle at a low cost, many will simply hail a vehicle as and when they require transport as a service.

However, new models of ownership are not mature in Wales. There is huge potential for Wales to be an early leader, though this must be executed correctly in a nationally coordinated way.

Learnings should be derived from London's attempts to create new mobility trends, such as when car sharing was strongly incentivised, later discouraged, then made conditional on vehicles being electric, though facilitation of charging infrastructure was later curtailed. As a result, EV car sharing schemes have not grown in London.

As a first step, the Welsh Government should convene a taskforce to determine the demand for such programmes and what type of sharing model might work. This information should then be used to prepare a public tender for regional exclusive car sharing operation contracts.

For this to be successful, the programme must be predicated on the fact that all cars will be electric and that sufficient charging infrastructure will be rolled-out in parallel.

Examples of best practice from Wales and further afield:

ChargePoint have recently undertaken a significant installation in partnership with InstaVolt, delivering 600 rapid DC chargers across the UK including at locations in Cardiff and Newport. In a survey for chargepoint mapping tool ZapMap, the Instavolt/ChargePoint network [topped](#) the user satisfaction ratings for open access charging.

The key to successful network is customer centricity. Charging stations must be operational as close to 100% of the time as possible. ChargePoint offers smart and rapid charging for every category of EV, and users are empowered with an app which details availability of charging stations and allows consumers to observe and manage various metrics around their charging habits.

In Europe and in the US we are leading the market in the provision of an open network that all drivers can use without needing a specific card or subscription to a charging network. In the last month alone we have announced roaming agreements with EV Box in Europe and FLO in North America.



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Roaming agreements mean that users of either ChargePoint or EVBox networks, for example, can seamlessly access both networks. This is a complex but fully achievable and cost-effective back-end technology agreement and ChargePoint is disappointed that there are particular UK operators who do not see the value to the driver of such agreements.

The future of roaming is a single, fully interoperable network where a driver can approach any charging station with the full confidence that they will be able to access it immediately for a transparent and competitive price. Commercial vehicle drivers, for example, will not have the confidence to drive EVs nationally in Wales without this.

Today in the UK, accessing an 'interoperable' network normally means a lengthy, uncertain stop at a charging station waiting to download the operator's specific app, or paying a premium for a 'pay as you go' charge. A similar experience upon visiting a petrol station in a new area would not be tolerated by motorists. ChargePoint does not believe this is satisfactory and is seeking to streamline the charging experience to give drivers a seamless and reliable service.