

CMA EV CHARGING MARKET STUDY INVITATION TO COMMENT

NIE Networks Response



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1. INTRODUCTION

Northern Ireland Electricity Networks (NIE Networks) owns and manages the electricity networks in Northern Ireland, transporting electricity to c. 895,000 customers. We directly employ over 1,200 people and support total employment of over 2,000 including our contractors, service providers and supply chains. We contribute over £150m each year to the Northern Ireland economy. NIE Networks is also one of the largest providers of infrastructure in Northern Ireland, investing over £100m p.a. in upgrading and expanding the electricity networks. This investment is a key enabler of infrastructure and development generally across the wider economy.

NIE Networks is regulated by the Utility Regulator (UR) within the energy policy framework determined by the Department for the Economy (DfE). The (Northern Ireland) Energy Strategy process being led by DfE will provide long term direction for energy in the context of the UK target for net zero GHG emissions by 2050. The Department for Infrastructure (DfI) is leading the Policy Working Group on Transport, as one of the five policy work streams within that overall process. NIE Networks fully supports and is engaged with that process and has identified tangible areas of opportunity to support the economy by unlocking investment in low carbon transport infrastructure.

As the electricity network owner and distribution system operator (DSO) in Northern Ireland, NIE Networks and will play a pivotal role in facilitating the rollout of all Chargepoints used by consumers in various private and public settings, each representing a different segment of the EV charging sector. Operating as a regulated business, NIE Networks must remain neutral in terms of competition between providers of EV charging however as a supporter of decarbonising the transport sector in Northern Ireland we do have concerns around the current lack of private investment for the provision of public EV charging infrastructure. Our understanding on the lack of private investment being attributable to primarily to the high capital costs to enter a small market, which presents a 'chicken and egg' scenario, where market growth is limited without the necessary infrastructure investment.

2. BACKGROUND

The current network of EV Charge points in Northern Ireland was largely installed in the period 2012-2014 by a consortium including the Department for Regional Development (now Department for Infrastructure), local Councils, Donnelly Motors, ESB ecars, and NIE Networks. Most of the initial funding was provided through grants from the Office of Low Emission Vehicles ("Plugged in Places" Programme). The network installed consisted of 322 Standard AC charger points (c. 160 sites) and 17 Rapid chargers. These chargers are formally owned by NIE Networks and installed in a range of locations such as council car parks, on-street and service stations across all counties of Northern Ireland.

3. CURRENT POSITION

The network installed under the OLEV funded 'Plugged in Places' (PiP) scheme in 2012-14, established an Electric Vehicle (EV) charging infrastructure in Northern Ireland that provided three times more charging points per head of population than the then UK average at that time. Since then, in the absence of any further investment, Northern Ireland's EV charge point infrastructure provision is currently half that of the UK average and rapidly falling further behind. This is now being reflected in the slower uptake of EVs in Northern Ireland due in part to 'range anxiety' and in part to a lack of visible infrastructure investment promoting the adoption of EVs.

The significance of this as a barrier to EV adoption was highlighted in a recent Report into the 'Attitudes to Electric Vehicles in Northern Ireland 2019/20' published by the Department for Infrastructure. This highlighted that the location and availability of the existing 337 charge points in Northern Ireland would discourage 34% of people from buying an electric vehicle.

The provision of public electric vehicle charging infrastructure requires high up-front capital investment and significant fixed operational costs to be incurred in expectation of (and to promote) growth at scale of electric

vehicles. There are still only c. 4,000¹ electric vehicles in Northern Ireland and more than half of these are plug in hybrid electric vehicles which are likely to use the public charge point network on a limited basis. The high investment cost and much smaller market relative to other UK jurisdictions makes the business case very difficult and discourages new entrants to compete.

4. DEVELOPMENT NEEDS AND BARRIERS TO PROGRESS

It is important that a holistic approach is taken to planning EV charging needs for Northern Ireland. A locally led approach is likely to lead to a patchwork network of inconsistent coverage across NI and will be sub-optimal for the users. It is also important to have alignment with the infrastructure in ROI to cater for the very many cross-border journeys that motorists make.

NIE Networks largely agrees with the various market EV charging segments identified in the CMA EV Charging Market Study Invitation to Comment paper however based the technical similarities between some of the defined segments we have combined some of these and propose an effective EV charging infrastructure for Northern Ireland is likely to consist of:

1. Home Charging - individual 7kW chargers connected to the home installation of the EV owner;
2. Public Charging - individual 7 to 50kW chargers located in public spaces (similar to the current infrastructure);
3. Rapid Charging Hubs - grouped 50kW (Rapid) to 350kW (Ultra Rapid) Chargers – the EV equivalent of a fuel filling station; and
4. Destination Charging – individual or grouped 3.5 to 7kW – These chargers would be provided by business for the sole use of their customers and/or staff

From a competition perspective, the installation of home charging and destination charging are likely to be funded privately, with possible grant assistance. The market place for off street home charging is becoming well established with various models available offering a number of different features across a wide price range. As the number of these connected devices increase, additional investment in the electricity network will be required to cater for the additional load. NIE Networks can undertake that investment, subject to appropriate regulatory support, and recover the cost through connection charges or through the electricity bills of the broader customer base. As such NIE Networks does not foresee network reinforcement costs presenting a barrier to competition in this segment.

With regards to Public Charging and Rapid Charging Hub, investment in both segments will need appropriate and clear funding mechanisms to make this investment bankable. The recent announcement of €6.4m/£5.8m EU InterReg funding for a network of 73 rapid charging points across Northern Ireland, Republic of Ireland and Scotland is a very positive and welcome development. While the detail of this investment and how and when it will be applied in Northern Ireland is not yet clear, it has the potential to make a very positive difference. It is important that this project provides appropriate coverage and access to rapid charging across all of Northern Ireland, and that these new charging stations can operate seamlessly with the existing charging network from the users perspective. Consideration also needs to be given to complementing these with a smaller number of Ultra Rapid charge points. In May 2020 the UK Government released a Vision for high powered (150-350kW), open access EV charging infrastructure at motorway services across England under the Project Rapid programme. The purpose of this programme is to ensure that there is a rapid-charging network ready to meet the long-term consumer demand for electric vehicle charge points ahead of need and a similar project is required in Northern Ireland where the smaller marketplace initially compels the need for some form of intervention to establish the necessary infrastructure prior to the EV market maturing and enabling normal competitive mechanisms to grow the infrastructure further .

To make progress on this, NIE Networks has advocated locally for a Northern Ireland Cross-Departmental Government EV Taskforce to be convened with representatives from key industry stakeholders such as Motor

¹ <https://nievo.org/top-20-best-selling-plugin-cars-in-northern-ireland/>

Distributors, Infrastructure providers and a representative of the Northern Ireland Local Authorities (similar to the 'Plugged in Places' Programme) to explore how best to set and move forward with Northern Ireland's EV ambitions including charging infrastructure. This should ideally be convened by the Department for Infrastructure and involve the Department for the Economy.

Options to be explored in respect of infrastructure funding might include:

1. Public/Private co-funding whereby matching funding from UK or NI Government was made available to enable a commercial investment.
2. Electricity Customer funding – whereby NIE Networks provides initial funding and recovers the cost from the general body of electricity consumers through electricity bills (as per the Derogation in the EU Directive).
3. Or a combination of the above two, where the NIE Networks/electricity customer funding is used instead of Government funding if that is not available, to partner with private sector funding.

Any solution will require the agreement of DfI, and any funding solution involving NIE Networks and/or the wider electricity customers will require the agreement of the DfE and the UR. Any such solution will include an exit strategy for NIE Network to divest of the assets at a suitable point in time when the commerciality of the infrastructure is sustainable. The views of the motor industry, EV users, and other potential market participants should also be considered.

5. CONCLUSION

In summary, NIE Networks' primary role in this area is to ensure the electricity network can support the expected growth in electric vehicles and to connect EV charging infrastructure to the electricity network. In addition to that, NIE Networks is willing to finance and deliver public EV charging infrastructure itself (or in partnership with others), if that is the optimal policy option identified to support the delivery of an effective EV charging infrastructure for Northern Ireland, and subject to a regulatory recovery mechanism.

Whichever funding options are adopted, NIE Networks will work proactively to enable and support the delivery of effective EV charging infrastructure in Northern Ireland

