

13 November 2017

By electronic copy only to: scrutiny@parliament.uk

Dear Sir/Madam

Automated and Electric Vehicles Bill 2017

Thank you for inviting UK Power Networks to give oral evidence to the Automated and Electric Vehicles Public Bill Committee on Tuesday 31 October 2017. I hope that the Committee found our evidence useful.

I wanted to expand further on our oral evidence and provide the Committee with additional information on the work we have been doing to support the electrification of transport.

UK Power Networks

We are the UK's largest, and lowest cost, electricity Distribution Network Operator (DNO). We operate three networks serving over a quarter of the UK population and providing a safe, secure and sustainable electricity supply to 8.2 million homes and businesses across London, the East and South East of England. Operating and maintaining the electricity network for these areas enables us to play an important role in the electrification of the country's public and private modes of transport.

How electricity is generated, distributed and used is changing. To facilitate this change we are transitioning from being a DNO to being a Distribution System Operator (DSO), creating a more flexible and responsive network that will support Electric Vehicles (EVs), heat pumps, battery storage and other technologies of today and of the future.

Specifically to help with the uptake of EVs, we are working with local authorities, taxi and fleet operators to enable the uptake of EVs and help the Government achieve decarbonisation targets, and support the Mayor of London and local authorities to meet their air quality targets. We have also produced guides for local authorities and fleet operators to explain the process for connecting EV charge points.

Electric Vehicle uptake

By 2030, we forecast between 1.2 and 1.9 million additional EVs will be connected to our electricity networks. In the last six years we have connected over 1,800 EV charge points, representing 21MW of additional load, to our networks.

This comprises of both charge points installed at customer properties and directly to our network such as on-street charge points. We have been actively exploring the impact of EV charging demand on our electricity networks as well as the opportunities for intelligent management of demand from the existing network capacity. Our research in this area has highlighted that there are innovative approaches that should be utilised including smart charging.



We believe that customers should have the choice to charge when they want. Smart enabled tariffs should provide the right pricing signals that reflect the cost of charging at times of higher/lower network demand. Our Low Carbon London project found that 70% of customers were influenced to shift their charging in response to price signals.

Clause 12 – Smart Charging

We welcome the proposal to require, by regulation, “that a person must not sell or install a charge point” unless it complies with specific prescribed requirements.

The technical specifications detailed in Clause 12 will provide DNOs with information that is needed to monitor power usage to ensure safe and efficient operation of our networks. These ‘smart’ charge points also enable pricing signals to be sent to customers to encourage them to charge at times of lower demand, thereby utilising existing network capacity and reducing the requirement to reinforce the electricity network.

Nevertheless, we do expect that a blend of both smart charging and reinforcement will be required to meet the charging requirements from an increased uptake of EVs.

Visibility and mandatory notification

Greater visibility of the installation of all charge points would improve our ability to plan and manage our network. This could be achieved by requiring all charge point installations to be notified to us.

Currently we are notified when new charge points are installed through an EV charge point installation notification process with the Electricity Networks Association (ENA). This captures data on the location and rating of charge points, this is also supported and recommended in the IET Code of Practice on charge point installations. However, it is largely a voluntary process and in 2016/17 we received only 900 charge point installation notifications, however we have over 34,000 EVs registered in our three network areas.

We believe inserting a requirement in Clause 12 for all charge point installations to be notified would strengthen the regulatory framework to achieve the objective set out to “enable consumers in the United Kingdom to be amongst the first in the world to reap the rewards that improved transport technology will bring”.

I hope this additional evidence is of assistance, however please do not hesitate to contact me if you require any further information or clarification of any of the points raised.

Yours sincerely



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UK Power Networks

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