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Our ref: TOB2017/21289

25 September 2017

Dear Mr Harrison

Thank you for your email of 11 September to the Rt Hon Greg Clark MP, regarding the potential impact on electricity demand stemming from a rise in electrically powered vehicles.

As I am sure you will appreciate the Secretary of State receives a large amount of correspondence every day and is unable to respond to each one personally. I have been asked to reply.

I can assure you that the Government is conscious of the potential impact on electricity demand stemming from a rise in electrically powered vehicles. As more electric vehicles are produced and registered on our roads, we continue to invest in a smarter energy system, built to meet the demands of the future such as charging car batteries. However, some of the media reports on this issue have overestimated the amount of additional power that may be required. National Grid's Future Energy Scenarios (FES), published in July, estimates that the increase in peak demand attributed to electric vehicle charging could be around 6GW in the most likely scenario.

The reason that the impact is likely to be considerably less than in some reports is that the way we use energy in the future will change. We recently published a smart systems plan with Ofgem to enable energy suppliers to create new, smart tariffs to help balance supply and demand throughout the day. In the future, this will mean people will be rewarded for using energy at off-peak times – so electric vehicle drivers will be able to charge their vehicles over night for less money. Our plan will also enable electric vehicle drivers to use their cars as batteries to store electricity, which can be sold back to the grid when it is under pressure. This is both good for consumers and will ensure we have enough energy to meet future demands.

Having a smart energy system fit for the 21st century will ensure we have the right balance of energy to meet demands while helping to reduce our carbon emissions, as our reliance on fossil fuels diminishes.

While our energy system becomes smarter, the Government has already taken significant steps to secure energy supplies for homes and businesses through schemes like the Capacity Market. Very simply, this is a competitive auction system that the Government uses to make sure we always have enough electricity. Target levels of electricity capacity are set before the auction opens, and then technologies have the opportunity to bid to provide that capacity.

If electricity demand increases, we will simply set higher capacity market targets and procure alternative capacity in the meantime. We can get this from a wide range of sources. For example, recent auctions have seen substantial amounts of innovative new technologies like battery storage and demand side response, as well as more traditional thermal plant like gas. Other measures being taken to ensure the security of electricity supply include the broadening of the UK's generation base through the deployment of new nuclear generation and offshore wind.

Ministers are confident that the measures we are taking will ensure that the country has the power it needs. However, we will continue to monitor both demand and supply issues as they evolve to ensure that we have the right plans in place.

Thank you again for taking the time to write.

Yours sincerely

A handwritten signature in black ink, appearing to read 'H Huish', written in a cursive style.

Helen Huish  
BEIS MINISTERIAL CORRESPONDENCE UNIT