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Dear Frances,

Re: Open letter: Charging arrangements for embedded generation

On behalf of Electricity North West, we appreciate the opportunity to respond to this consultation. We welcome the ability to contribute to relatively early development in this area and are keen to contribute to future thinking.

We think the issues raised within your letter are fundamental in their nature and reflect the significant changes being observed in the sector as the country transitions to a lower carbon future. As we move away from large, centralised power stations connected to the transmission network to an increasingly decentralised generation portfolio, the term 'embedded generation' that was once used in exceptional circumstances seems less and less relevant as these customers make up an increasing part of the energy mix. We believe that any short-term 'fixes', need to be developed against the background of a longer-term more flexible and user-friendly approach that can adapt as quickly as our customers' need.

The extent of the challenges associated with transmission charging means that we do think there is merit in further work to consider whether it is time for a more fundamental review in this area. There is a danger that we continue to attempt to use 'sticky plasters' instead of looking for a long-term solution to the issues being considered. However, we appreciate that such reviews do take time.

We therefore recommend that any interim measures to address the immediate short coming of a flawed charging mechanism must be time bound to avoid this issue being delayed further. Identifying the principles that charging principles need to be tested against may help in considering both longer-term and more immediate solutions. Some thoughts are provided below.

(i) Charges should be recovered by the network to which customers are connected

We do not believe it is appropriate to continue to refer to users of the distribution networks as embedded and that terminology needs to be reviewed to reflect the fundamental change that has happened in the industry since privatisation. We suggest that the industry might wish to consider moving towards charging arrangements that follow the broad principle of all charges or credits being recovered only by the network to which customers are directly connected. Transmission charges would then be designed that reflected the costs resulting from net demand at the distribution boundary, with distribution network charges passing these costs on in a cost reflective manner to distribution end customers. This approach would allow the benefits that generators bring as a consequence of being connected to the distribution network being more appropriately factored into the costs borne by these parties.

The issues of price distortions between customers connected to distribution and transmission arises from the System Operator looking to levy charges on users not directly connected to its network. If the System Operator was to levy cost reflective charges on those users directly connected to the transmission network (such as DNOs) and leave it to DNOs to reflect these in charges to its users then we believe this is more likely to lead to overall efficient outcomes. DNOs already operate on this basis and do not look 'beyond the meter' to see what customers are doing. We believe the same principle should apply to transmission and this issue will not be resolved whilst the concept of embedded charging continues.

Whilst not a small task, involving licence modifications and consideration of timing of notice periods for charges to ensure there was no undue cash flow shock for parties involved, we do believe this could be pursued in parallel with a more fundamental review of transmission charging principles to allow benefits to be realised sooner rather than later.

(ii) Balancing the components of the 'energy trilemma'

We share your view about the importance of ensuring efficient outcomes for customers, although are also mindful of wider governmental policy drivers to decarbonise the sector and the need to ensure security of supplies. Ensuring that any changes are considered in the light of their potential implications for all of these aspects is likely to minimise the likelihood of consequences that worsen, rather than improve, the situation.

(iii) Cost reflective

We do think there is a mis-match between transmission and distribution charging that goes beyond what is set out in the letter and are contributing to a number of debates in this area, particularly through a number of groups established under the Energy Networks Association (ENA) considering the Transmission : Distribution interface. We therefore believe that the long-term ambition for this must be that users face cost reflective charges for how they use the system.

(iv) Fair

Within appropriate technical limits, we do not believe that we could or should do anything to prevent customers using the network in the way they want to. We are increasingly aware that customers are becoming more diverse in how they wish to use our network and charging needs to be sufficiently responsive to ensure that this does not 'favour' or 'penalise' any particular group of users. To this end, we are looking to extend this concept further through introducing 'virtual private networks' which is in response to customers looking to install their own private networks which would be economically irrational. Trying to control what customers do on their own network is not feasible, the focus must be on the impact they have on the boundary with our system.

We also need to be mindful of what is triggering investment in the system. Historically, the driver of cost that has needed to be reflected in charging has predominantly been system peak. As we move from maximum demand (ie 'triad periods') to minimum demand, power factor and voltage stability more significantly being the primary drivers, the pressures on the transmission system are increasingly being felt outside the triad window and there are currently insufficient tools to signal these drivers to customers in the current arrangements.

As part of a fundamental review, we believe that the spectrum of services that customers receive (or are likely to receive) from the networks should be examined and reflected into the charging principles. This should reflect the emerging cost drivers and signal a fair price to customers for the services they require, which we envisage extending beyond peak demand to include voltage stability, fault level and frequency stability without which customers would be unable to operate their equipment.

(v) Consider the impact on more vulnerable customers

We believe it is increasingly important to recognise that the system is being used in ways it was not originally designed for to ensure that the impacts on all users of the networks, and particularly those that are more vulnerable, are understood. We are continuing to see new generation connected behind the meter and, even in light of on current policies and trends, we anticipate this continuing. We also foresee that customers may, as prices for small-scale generation and domestic storage become more affordable, seek to become self-balancing, requiring a network connection but making minimal use of the network. This presents significant challenges for the current charging structure, particularly for customers with less disposable income who may find their share of network costs increases. This is an example of one potentially undesirable consequence that needs to be adequately considered as part of this work.

We hope the above comments will be useful and would welcome engagement with you and the team, particularly in relation to the points raised above. In addition, if you have any comments or questions, please do not hesitate to contact us.

Yours sincerely

Jen Carter
Regulation Manager