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Dear Mark

Electricity Distribution Use of System Charging Modification Proposals:
Central Networks and United Utilities – Reactive Power Charges

I refer to the open consultation letter, dated 15 December, on the above and set out SSE's response to the issues raised below.

We note that Ofgem has taken the opportunity to issue a single consultation on the changes to use of system methodology with respect to reactive power charging proposed by two different DNOs. We welcome this streamlining of approach where possible, but consider that this should not raise any unnecessary concerns within Ofgem if the individual DNO proposals are different. In general terms, each DNO will have a different starting point in terms of its existing charging methodology, the characteristics of its network and the extent to which power factors are a matter of concern on that network.

Furthermore, the licence only requires that a DNO review its methodology with the aim of proposing modifications for the purpose of "*better* achieving the relevant objectives". Provided that a DNO's proposed modification leads to an improvement, in terms of the relevant objectives, in its existing methodology, then the licensing framework sets an expectation that Ofgem will not veto that proposed modification or set artificial criteria on the degree of improvement required. This framework therefore allows DNOs to consider the appropriate degree of change in methodology to introduce at any one time in the context of the stability of the resulting charges for customers.

It may be that the ongoing work by DNOs to produce a common framework for the longer-term arrangements for use of system charging will also lead to a converging approach to setting reactive power charges across DNOs. In the meantime, we do not consider that it is reasonable for developments proposed by individual DNOs to be halted because they are different from

other DNOs' methodologies. Other DNOs' methodologies, for reactive power charging as well as for other detailed aspects of charging, are unlikely to be completely aligned in any case.

Ofgem's questions

- *Are the proposed modifications to the charging methodologies for excess reactive charges more cost-reflective considering also that the approaches being proposed are different?*
  We broadly support both UU's proposal for greater clarity in methodology and CN's proposed introduction of charges (appropriate to the metering information available) for half-hourly customers whose power factor causes costs on the network. While different methods of calculating such charges will have different degrees of complexity and cost-reflectivity, the value of implementing such charges is, in our view, down to the pricing signal given to customers and suppliers that power factor should be controlled.

- *As noted in Annex 1, there are different approaches taken by DNOs to reactive charging – are these justified?*
  We do not believe that there is a fundamental problem with this, as discussed above.

- *Both of the proposals appear to establish what the incremental cost of extending the network at peak may be at different power factors. It is not clear how these costs also relate to the existing capacity charge (kVA) which all DNOs levy in some form or another on larger users (normally HH metered). Does the capacity charge already reflect an element of these additional costs?*
  Charging larger customers for kVA of capacity can provide a signal to those customers to control their power factor. Charging for reactive units (KVArh) in addition could provide a more focussed signal (if reflected by suppliers) for customers who have adverse power factors. As noted in response to question 1, the value in levying such charges comes down to the signal they provide to individual customers, to the extent that customers are willing and/or able to react to that signal.

- *Poor power factor may increase costs in the network at times other than peak, which may lead to increased network losses. The methods proposed by the DNOs indicate that these charges do not reflect the cost of the network losses for instance – should they?*
  As Ofgem are aware, we favour an approach to network charging that is not unnecessarily complex. Capacity is a major driver of network costs and therefore the emphasis on peak network requirements in charging methodologies is valid. A number of second order effects, such as the one noted, might collectively have a small overall effect on network costs. However, in our view, it is not practicable to model or base charging methodologies on all of these. We consider that trying to model the effect of reactive power on losses would be too complex and that one should not lose sight of the benefits of providing an "approximately right rather than precisely wrong" charging signal on this issue.

- *CN propose that reactive charges should only apply to their demand customers while UU already charge distributed generation for excess reactive power charges and do not intend to change this approach except to change the method of calculation. Is there justification for levying (or not levying) excess reactive charges on distributed generation?*
  As noted above, there may well be different issues with power factor on the different DNO

networks in question, so different approaches might well be justified.

- *Do the proposed modifications better achieve the relevant objectives?*
  Yes, from the information available in the consultation, it appears that the changes to methodology proposed are more cost-reflective and we therefore believe that they do better achieve the relevant objectives.

I hope these comments are helpful.

Yours sincerely

Rob McDonald
Director of Regulation