

Our Ref: CN And UU Reactive Power Charging

Mark Cox,  
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Dear Mark,

**Consultation on Electricity DUoS Charging Modification Proposals:  
CN and UU – Reactive Power Charges**

Thank you for the opportunity to comment on this consultation. I can confirm that our response can be published on the Ofgem website.

Network users with poor power factors cause additional and unnecessary network current flows. This extra loading will contribute towards additional and costly network reinforcement. It will also create the need for suppliers to purchase additional energy to cover the lost energy caused by the increased variable distribution losses.

Applying charges for poor power factor is therefore important for efficient network operation. It enables network operators to provide a clear economic signal that encourages users to take corrective action.

The attached Appendix contains more detail on the specific views sought through the consultation.

EDF Energy supports both Central Networks and United Utilities Reactive Power modification proposals on the basis that they reflect costs to those users who cause them. This reflection of costs better achieves the relevant objectives.

Please contact me on 01293 657920 should you require further clarification.

Yours sincerely

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## Appendix

*Are the modifications to the charging methodologies for excess reactive power more cost reflective considering also that the approaches being considered are different?*

*As noted in Annex 1 [of the consultation document], there are different approaches taken by the DNOs to reactive charging – are these justified?*

EDF Energy response: We consider that there are a number of different means of modelling how poor power factor contributes to higher network costs. Both of the proposed modifications better achieve the relevant objectives, irrespective of their differences.

*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 relate to the existing capacity charge (kVA) which all the 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?*

EDF Energy response: Capacity charges are generally calculated using an assumed power factor. The modifications propose that the charges for poor power factor are applied only when the assumed power factor has been reached.

*Poor power factor may increase costs on 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?*

EDF Energy response: The relevant objectives that guide the DNOs charging methodologies do not provide the scope to recover costs that are not met by the DNO. Additionally, the cost of the extra losses to suppliers are then smeared to all users and so do not form part of the economic signal to the individual users with a poor power factor. DNOs are able to amend the future loss factors applied to a site if the power factor deteriorates. This cannot be done retrospectively, has a time lag in the change process and hence does not provide an instant signal. DNOs should be able to apply a charge to reflect all the costs and hence provide a more economic signal to improve their power factor.

*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?*

EDF Energy response: While charges should be levied for poor power factor, DNOs need to be able reflect the impact using the most appropriate method. Distributed generation sites often have particular and individual controls applied at the time of connection and these are managed through the connection agreement. Additionally, the metering requirements for settlements purposes constrains the recording of power factor to the import MPAN, which causes issues over the level of power factor and whether any charges are directed to the import MPAN.