

Chris Chow  
Distribution Policy  
Ofgem  
9 Millbank  
London  
SW1P 3GE

12 July 2010

Dear Chris

### **Electricity distribution charging boundary between higher (EDCM) and lower (CDCM) voltages – Impact Assessment**

Thank you for the opportunity to comment on the above consultation. This response should be regarded as a consolidated response on behalf of EDF Energy's three licensed distribution companies – EDF Energy Networks (EPN) plc, EDF Energy Networks (LPN) plc, and EDF Energy Networks (SPN) plc. For convenience, the three licensees are collectively referred to as "EDF Energy Networks" throughout. We are happy for this letter to be published on Ofgem's website.

In Appendix 1 to this response we have answered Ofgem's questions relating to Boundary Options, Option Assessment and Next Steps. In arriving at a conclusion in regard to our view of the CDCM/EDCM boundary, we believe that there are two key points to address:

- Firstly, that the average EDCM UoS charge and the average CDCM UoS charge at the same network boundary location should be roughly similar. Therefore, on average, there should be no apparent financial advantage in being charged using the EDCM or CDCM at the same network boundary location for a typical customer.
- Secondly, that there is an interaction between the engineering decision on network design and the commercial framework which includes UoS charges, and that what is sought is the most economically efficient engineering solution. It is imperative, therefore, that users do not perceive that one methodology provides lower charges than the other and for this to drive the decision about the location of their desired voltage/method of connection. The boundary option that is selected, and the consequential methodology, must minimise perverse incentives.

To contribute to this principle, and minimise perverse incentives, it is also important that the charge structure is similar between the EDCM and CDCM, so that users with a high or low load factor do not gain a benefit from one methodology due to the difference in fixed and variable charges. For example, under the current design of the EDCM, a low load factor user would benefit from charges through the CDCM, due to the lower allocation of revenue recovery to fixed charges. Because of this effect, we think it important that there is a similar use of fixed, capacity and unit charges – in similar proportions – in the EDCM and CDCM.

With regard to the actual physical boundary location, we do not feel that a charging methodology boundary should stifle efficient network design. So while it may be advantageous to have a clearly defined boundary for the benefit of suppliers and users, this may cause customers to seek a connection that is not the most efficient network design. Additionally, if the charging boundary is lowered too far, the increase in individually charged users may raise charging administration costs unnecessarily for both DNOs and suppliers. Therefore, achieving the 'best' charging boundary may necessitate more sophisticated parameters than those currently offered.

In this respect, looking at the materiality of the connection arrangement would be helpful. In our opinion, we would need to identify sites whose use of the network is material enough to warrant a site specific charge rather than an average tariff.

Our preferred option for the charging boundary would be to allocate the following class groups to the EDCM:

- Group 1, all Class A
- Group 2, Classes B1, B2, B3, C1, C2 and C3 – where the substation and subsequent assets are dedicated to one user
- Group 3, remaining Classes B1, B2, C1 and C2 – where the user's Agreed Capacity is greater than [10MVA].
- All other classes should be charged on an applicable CDCM tariff.

This coincides with Option 6.

Separating the B and C classes into Group 2 and 3 would have the advantage of allocating individual costs using the EDCM to those users whose use was 'sterilising' assets from other users, as in the case of a dedicated transformer connection (Group 2), or where the materiality of their connection was sufficient to warrant the need to model their cost individually (Group 3). We consider this to be a fair and equitable approach, based on the customer's usage of the network whilst ensuring that engineering design can evolve and not be frozen in place by a charging methodology.

As long as there are documented rules for assigning the EDCM to users, we do not feel that there should be any issues over clarity. Additionally, suppliers and users will be able to identify EDCM MPANs though the LLFC allocated by the DNO.

Should you require any further clarification about this response, please contact me on 01293 657880.

Yours sincerely

Oliver Day  
Pricing Development Manager  
EDF Energy Networks

## Appendix 1 Responses to Questions

### Boundary Options

Question 1: We welcome views on any aspect of the options presented in this chapter, and seek to understand whether any additional options or issues should be considered.

and

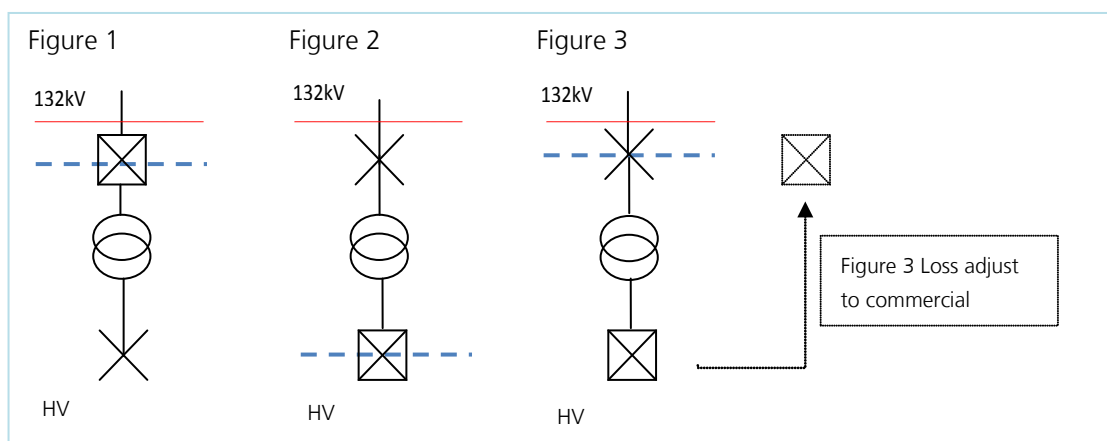
Question 2: We seek views on whether 'sole use' assets should feature in the definition of the boundary.

We have detailed our preference for allocating the EDCM based on additional criteria of dedicated assets and materiality of the connection (Option 6). Further comments on the matter of sole assets are detailed below.

Question 3: We welcome views on how customers subject to 'special' metering arrangements should be treated in the definition of the boundary

Where a customer is connected at 132kV and is providing transformation to 11kV (HV), this arrangement may ordinarily be called an EHV connection. Although differences may exist in terms of the meter position and the commercial boundary, the network requirements for this type of connection are the same and, in our opinion, have the same impact on network reinforcement (see Figures 1, 2 and 3); that is, to implement this type of connection arrangement, the upstream impact would largely be the same.

However, under these circumstances, the customer may request a connection arrangement similar to those presented in Figure 2 or Figure 3. Figures 2 and 3 simply present an arrangement like Figure 1, but have the metering on the HV side and thereby provide potential cost savings. Metering placed on the HV side of a 132kV-HV transformer could be classified as an HV site, whereas treating this connection arrangement as an EHV site – and with the provision of metering accounting for loss adjustment, so as to provide the measured equivalent of a meter connected at 132kV – would seem more cost reflective in terms of impacts relating to future reinforcement.



Commercial Boundary ————  
132 Connection ————

Question 4: We welcome views on how customers subject to 'special' settlement arrangements should be treated in the definition of the boundary.

Those sites which have a material connected capacity (for example > 10MVA) and where their connection is capable of being power flow modelled should be charged using the EDCM. This removes the need for differential treatment where a site could be considered as having a requirement for 'special' arrangements.

Question 5: We welcome views on how 20kV customers should be treated in the definition of the boundary.

It is our view that 20kV connected sites should be treated differently from 11kV connected sites. To this end, we make the following suggestions:

- Firstly, provide the flexibility to DNOs to lower the 22kV voltage parameter to 20kV if they are power flow modelling at that level, so that modern network design individual to some DNOs, and the users connected at this voltage, can be accommodated.
- Secondly, model a 20kV tariff as part of the CDCM. We would favour this option at this stage.
- Finally, develop the LB option taking into consideration connection arrangements that have substations with primary connection 66kV or above and a secondary voltage of 11kV or above placed within EDCM.

## Option Assessment

Question 1: What are your views on our suggested factors for considering the boundary options, and are any other factors relevant?

It is EDF Energy Networks' view that boundary rules must recognise the connection arrangement's materiality, rather than just the point of connection, and the voltage level of the metering (as illustrated above). This would in our view create a more cost reflective approach and could be incorporated as part of Option 6 to provide a common form. The hybrid scheme, as presented in Option 6, offers the possibility of providing boundary rules through a hierarchical selection process which includes connected capacity, offering further scope for a more cost reflective solution.

We believe that this, combined with some further scope regarding sole use assets, could provide a fair basis for establishing EDCM/CDCM boundary rules. Making the boundary rules more cost reflective and giving them a common form would also reduce ambiguity in interpretation, thus helping to reduce the risk of undue discrimination, promote competition and reduce the risk of perverse incentives.

It is important in our view that boundary rules should not discriminate between sites with similar network requirements and having the same impact on our networks with regard to future use. Essentially for a site, irrespective of connection arrangements, the same EDCM/CDCM boundary outcome should be assigned.

Where the connection arrangements are similar to those in Figure 3, and the connection arrangement is only defined by the metering voltage, Figure 3 would then be defined as an HV connection within the CDCM, whereas the identical connection arrangements in Figure 1 would under the same rules be defined as an EHV connection within the EDCM. Given that these two connection requirements are identical, rules governing the boundary decision should in our view provide the same decision outcome as stated above.

With boundary rules that are not consistent for the similar connection requirements, there is a higher probability that undue discrimination could exist for those users who are simply attempting to save costs through purchasing HV metering equipment, as against purchasing EHV metering equipment (See Figure 1). This example further illustrates the necessity of considering the materiality, as well as the voltage level, of the metering within the whole connection requirement.

In the same example, boundary rules that only consider the location of metering equipment could result in a situation where the choice of connection arrangement could be influenced by economic forces relating to tariff differences in the CDCM and EDCM, rather than being influenced by an economic signal to use our networks in the most efficient manner. Promoting this trend would distort pricing.

Question 2: What are your views on the grounds and issues that should be taken into account in determining whether any potential discrimination can be objectively justified? What are your views as to whether discrimination occurs in respect of the options under consideration?

Please note our previous comments, where we highlight the possibility of discrimination where a customer with the same network requirement could have different charging methodologies and applied charges due only to the connections having different metering arrangements. We do not believe that discrimination of this form is appropriate.

Question 3: We seek views on Option 6 along with views on any of the hybrid approaches that respondents consider appropriate.

Of the listed options, we favour option 6. Principally, this offers the best possibility for recognising the need to identify and select sites whose networks are material enough to warrant a site specific charge under EDCM rather than an average tariff under CDCM.

Question 4: We seek views on the role/treatment of 'sole use' assets in defining the CDCM/EDCM charging boundary and on metering and settlement issues that have been raised.

We have illustrated this as part of our answer to 'Boundary Options', Question 3.

Question 5: What issues are there around charging impacts? In relation to these are any specific measures required?

In our view, the average charges for the same point in each methodology should be similar, as this would reduce movement between the EDCM and CDCM for a given connection arrangement.

Question 6: In view of this chapter and the impact assessment in appendix 3, what is your preferred option for the boundary, and why?

Our preference is Option 6, for the reasons mentioned above.

## Next Steps

Question 1: We seek views on the next steps we have noted and the associated timescales.

In terms of progressing the development of the EDCM, EDF Energy Networks should be able to implement Ofgem's decision on EHV boundary rules which determine whether a customer is charged as part of the CDCM or as part of EDCM, providing Ofgem's decision is made in good time.

In our view, price changes which occur as a result of changes to boundary rules or the charging methodology, and which result in improved cost reflectivity, should take effect from the first day of methodology application. We consider that any alternatives that delay the impact of price changes will give rise to cross subsidy on the part of other customers within the EDCM, or within the CDCM.

We believe it is Ofgem's role to determine whether customers need special measures in order to minimise the impact of changes to pricing.

Question 2: We seek views on whether the boundary should additionally change over time, for example in response to technological developments.

EDF Energy Networks is aware of technological changes within the industry and would expect to see changes in UoS charging methodologies resulting from such progress. As technological changes occur, we anticipate that any such changes would be subject to industry acceptance, and would seek to acquire stakeholder opinion as it is managed through the governance arrangements.

---

<sup>i</sup> 10MVA is a suggested value. We are content to discuss alternative measures of materiality.