

I refer to the consultation on Enduring Transmission Charging Arrangements for Distributed Generation.

This response is submitted by SP Transmission & Distribution, which is responsible for ScottishPower's three network businesses in GB - SP Transmission Ltd, SP Distribution Ltd and SP Manweb plc.

Introduction

SP Transmission and Distribution welcomes the opportunity to respond to this consultation. We found the paper to be a useful summary of the current contractual and charging arrangements and in identifying the issues surrounding transmission in relation to Distributed Generation (DG).

Before addressing the specific points raised in the paper, we would like to outline some general points of principle which have guided our approach to these issues.

1. Location of generation close to centres of demand should be seen as efficient in that, in the long run, it reduces the need to transport power over long distances, decreasing system losses.
2. Charging methodology should not be considered in isolation. The operational framework is equally important.
3. The complexity of the current arrangements would be reduced if transmission charges were focused on parties directly connected to the transmission network.
4. The addition of 1MW of DG is not always the same as adding 1MW of transmission-connected generation. The effect of DG is often to reduce demand on the transmission system. As such, TNUoS should only be levied on those generators whose output, at any time of the year, can be 'seen' by the system operator and who hold corresponding transmission access rights.
5. DG located close to centres of demand, which do not cause an export onto the transmission system, should not pay TNUoS as there is no use of the transmission system. The same principle should apply to both microgen and > 100MW generators.
6. The contractual arrangements should be seen as part-and-parcel of the charging arrangements in that paying charges is the counterpart to contractual rights. If the outcome of this consultation is that a particular embedded generator does not pay TNUoS then that generator should have no legal entitlement to use the transmission system and could be constrained off with no compensation if its export causes operational problems for the GBSO.

Our comments on the questions raised in chapter 6 are set out below.

1. The extent to which the current charging and contractual arrangements relating to distributed generation are appropriate.

It needs to be borne in mind that exports from GSPs to the transmission system are the result of a surplus of DG over demand and therefore do not necessarily correlate to the level of generation taken on its own. On the other hand, transmission connected generators export to the transmission system as and when generation takes place.

DG should in our view normally be seen as offsetting the level of demand at GSPs that would otherwise occur. DG should not be liable for TNUoS unless a particular GSP exports onto the transmission system. However, the existing charging model is based on incremental flows at times of national peak demand. It is assumed that these are the key periods for determining long run costs. That approach means that if GSPs export at times other than at system peak then there is no implied effect on long run transmission system costs. On this basis only GSPs that export at times of national peak demand should be liable for TNUoS charges. It is therefore difficult to see how the existing use of transmission system charging methodology addresses spill at other periods and this perhaps needs to be reviewed.

It is also difficult for us to see how DG below the current TNUoS charging threshold should be incorporated into a national model of transmission flows when its overall impact in future is likely to lead to lower use of the transmission system.

We therefore see a need for a review of transmission use of system charging methodology so as to take into account the above factors.

2. Whether the issues set out in chapter 4 represent concerns regarding the existing charging and contractual arrangements

Under the existing approach we agree that there is a potential for distorted incentives to connect at a particular size, voltage or location.

By imposing TNUoS on DG above a certain capacity, say 100MW, there is an incentive to connect generation capacity at just under the threshold. If charges were instead levied on a DNO, where DG collectively in an area imposes costs on the transmission system, then this distortion would be removed. It would be for the DNO to accurately reflect these charges in its charging methodology.

With regard to 132kV costs, there should be no distortion in charging mechanisms providing the approach is cost reflective. The 132kV networks are owned by the twelve DNOs in E&W and in Scotland by the two Scottish Transmission Companies. If these charges are cost reflective then there should be no distortion in overall charges for 132kV connected generation, but merely a reflection of a different cost base. We agree with the argument made in the Renewable Energy Association response that transmission charges relating to 132 kV-connected generation, whether in England and Wales or in Scotland, should be based on net flows, should metering permit this.

We can see a potential issue of control if there is no contractual means of managing flows from medium/smaller power stations. We therefore see a possible need for a contractual link in this respect for the purpose of facilitating maintenance of system stability.

There is a danger of the spill issue overshadowing the more fundamental point that in future distribution networks are in general likely to make less use of transmission than now as a result of embedded generation.

3. The extent to which options for refinement outlined in Chapter 5 are practicable and address the perceived defects.



We believe that a DNO agency model is the appropriate means for managing spill at each GSP. The DNO could be charged according to a preset TEC at each GSP and spread the ensuing TNUOS charges across embedded generators in its area

This would ensure that

- (i) Charges for spill are allocated to the group of users responsible; and
- (ii) Charges take into account the balance between demand and generation. Generation users can limit their liability for charges by managing their output relative to forecast demand.

We would like to work with Ofgem to develop this further.

We can also see some attractions for a Supplier agency model, but this promises to be more complex than an arrangement whereby the DNO is responsible for all spill at a GSP.

Although we can see some theoretical benefits for an independent DSO in the longer term these do not in our view outweigh considerations of cost and complexity that would be entailed by a new contractual and operational entity.

4. Any other options for change not identified in the document

These are covered in our comments above.

5. The appropriate way forward

- The transmission charging methodology should be reviewed to address the issue of spill at times other than triad demand given its current reliance on flows at peak demand for analysis of long run incremental costs;
- Further consideration should be given to a DNO agency model whereby the DNO contracts for TEC at each GSP and spreads any charges for spill across embedded generation; and
- Further consideration should be given to contractual means of managing exports to the transmission network where this causes system operations difficulties.