

# ≡ Scottish and Southern Energy plc

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Dear Arthur

## **Distributed Generation: A Review of Progress**

Thank you for sending us a copy of the above document, which contains a useful summary of the issues raised by the distributed generation project. At the same time as your document was issued, Callum McCarthy wrote to Chief Executives of the distribution network businesses setting out further thinking on how the price control framework could be developed to accommodate the uncertainties around distributed generation. We have responded to that letter with proposals for the operation of an incentive scheme within the framework of the present distribution price controls. Although your document does not formally request a response, we have strong views about various aspects of the evolving debate on distributed generation, which are touched on in your document. I have therefore set out our views on each issue in turn below.

### **Consistency between transmission and distribution frameworks**

This is mentioned briefly in the document and there are other references to the development of zonal charges on distribution networks. We are strongly of the view that there is no need for an identical approach between transmission and distribution networks to charging principles, the boundary between connection and use of system and the type of economic incentives on network operators. In particular, we have recently responded to Ofgem's consultation on a proposed further incentive scheme for NGC's system operator function. In our response, we have argued very strongly that extension of a "deep system operator (SO)" incentive from Transco's gas transportation network to NGC's electricity transmission network would be inappropriate due to the fundamental differences between these networks. These concerns apply to an even greater extent to the difference between gas transportation and electricity distribution networks.



We support the DNO response mentioned in the document that comments on the significant differences between transmission and distribution networks which make zonal charging impractical on distribution networks. The approach that we advocate to the development of charging for distributed generation, as set out below, would result in little disturbance to the charges for other system users. The introduction of complex systems of, for example, entry-exit charges should not be considered before the need for this has been clearly demonstrated, and an assessment made of the relevant costs and benefits.

### **Charging Arrangements for Distributed Generation**

As set out in our response to Ofgem's consultation on the structure of distribution charges, our proposal for revised charging arrangements for distributed generators incorporates the following elements:

- A "shallower" connection boundary that still captures the costs which are clearly identifiable as being caused by the new generator within the connection charge;
- The infrastructure costs not captured by the connection charge would be recovered in the normal way, through use of system charges levied on demand; and
- To the extent that the additional charges levied on demand become significant (and this is likely to happen at different rates in different DNO areas), a GB cost-recovery mechanism could be considered, which would avoid an undue burden on customers in particular "renewable rich" areas of Great Britain.

This approach would address the issues noted in Ofgem's document about a shallower connection approach diluting the incentives for generators to opt for single-circuit security connections. We consider that it is entirely appropriate for the degree of security of the connection to be reflected in the connection charge as well as any investment required due to considerations of fault level, voltage variation and stability requirements. An assessment similar to the "25% rule" for demand connections could be made to determine whether the generator should make a contribution to any further investment (beyond what is clearly attributable to the new connection) in the actual capacity of line and plant needed to accommodate the connection. To aid consistency of approach between different DNO areas, it will also be important to develop a common understanding on the technical rules for planning the connection of distributed generation and for reinforcing the network.

### **Existing Distributed Generators**

We are strongly of the view that existing generators should not be affected either by interim arrangements or by any changes to the structure of charges introduced at the next distribution price control review.

### **Credit Risks**

The paper refers to the risks, which DNOs have pointed out, of moving to annualised charging of connection costs. This forms part of Ofgem's proposed interim arrangements and may have a place in charging arrangements for distributed generation after the next distribution price review. We are strongly of the view that it is appropriate for the stranded costs resulting from commercial failure of a generator paying for connection

costs under such an arrangements to be included on the DNO's regulatory asset base (**RAB**). If there is any uncertainty about recovery of bad debts through the **RAB**, DNOs will be reluctant to offer annualised connection charges.

### **Connection Standards**

We note Ofgem's discussion of performance standards for connection quotations. There are already some standards of performance on connections, and we do not think that the case has been made for these to be extended. The example noted in the document where a prospective generator did not receive a response to a completed connection application from the relevant DNO for a number of months could perhaps have been resolved earlier if the generator had contacted Ofgem for assistance. It would be an extreme reaction to impose penalty-based performance standards on all DNOs as a result of one or two such examples.

### **Micro Generation**

Ofgem's document touches on the settlement issues around spill output from the smallest class of potential distributed generation. Within the current framework of trading arrangements, such spill output is likely to be unattractive to suppliers who are strongly incentivised to balance their portfolio of purchases and sales in real time. We question whether the economic value of any such spilled units warrants the substantial system development planned to amend market data and settlement processes to reflect a new category of non-half-hourly site as envisaged in the Balancing and Settlement Code Modification Proposal P8 1.

There are also significant network considerations surrounding the connection of increasing quantities of micro-generation (MG). These are most clearly seen where such installations are connected as a group, for example in a new housing development. In this case, the network investment would have to cater for the expected demand from the properties, ignoring the presence of the MG, which may not necessarily be turned on. It would also have to cope with a scenario where demand within the properties was very low and the MG was exporting to the wider network. In addition to the normal factors taken into account in planning the investment for a housing development without MG, there would also have to be consideration of voltage level issues, system stability and potential fault level issues. Some of these may lead to additional investment requirements beyond those needed for the "standard" housing development. It is very important that distribution businesses are made aware of individual installations of MG as these occur so that appropriate consideration can be given to network safety and security. It will also be useful for Ofgem's work on distributed generation to recognise the additional costs of MG in developing the price control framework, both in terms of actual system stability and the risk of stranded assets.

### **Transmission Considerations**

Finally, we note that Ofgem's paper touches on the development of British Electricity Trading and Transmission Arrangements (BETTA) and the status of the 132kV system in Scotland as a transmission level voltage. The present definition of transmission in the Electricity Act 1989 (as amended) classes the 132kV network in Scotland as transmission. This contrasts with the situation in England and Wales, where the 132kV network is a distribution network. This would mean that generators embedded in the 132kV network in Scotland would be exposed to higher network charges than

comparable generators connected at the same voltage in England and Wales, which is clearly unacceptable.

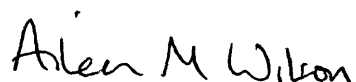
We believe it is essential that the commercial framework for small generators under BETTA is harmonised across GB. In particular, the relevant documents such as the Connection and Use of System Code, the Balancing and Settlement Code and the Grid Code would need to be amended for **BETTA** to ensure that generators connected to the 132kV system would not be penalised simply because they happen to connect to systems licensed as “transmission” or “distribution”. In Scotland, new renewable generators, as well as existing hydro schemes, are connected to the 132kV system, and should be able to enjoy the same benefits as their counterparts in England and Wales. We believe that this should be achievable, but in our view, urgent clarity is needed about the treatment of the 132kV network before detailed implementation plans for BETTA can be considered.

Another uncertainty affecting the position of distributed generation in Scotland relates to the form that transmission pricing will take post BETTA. At present, NGC use a mechanism known as “ICRP” to calculate transmission charges on a zonal basis. The effect of extending ICRP pricing to Scottish generation and customers is as yet unquantified. However, it is expected to be detrimental to Scottish generation and therefore also to the new distributed generation that the Government is trying to encourage. In particular, a possible outcome of the ICRP model is that demand charges would be negative in Scotland, i.e. customers would be paid to use electricity. This would not only be an inappropriate signal to consumers in terms of energy conservation but would also serve to discourage embedded generation, which is treated as negative demand under the ICRP methodology. The knock-on effect on the commercial arrangements that Ofgem refers to in the document would be to require a payment from generators who generate at time of peak demand.

We therefore believe that the proposed transmission prices should be finalised and published as soon as possible. In setting these prices, we believe that charges for demand should be positive and that Scotland should be treated as a single zone, which would mitigate the worst aspects of extreme pricing under ICRP. Depending on the impact of the new prices on Scottish participants, it may also be necessary to consider phasing them in over a number of years in the same way that NGC migrated to its ICRP policy in the mid 1990's.

I hope you find these comments helpful.

Yours sincerely



PP . Rob McDonald  
**Group Regulation Manager**