natural power
The Natural Power Consultants Ltd
The Green House
Forrest Estate
Dalry
CASTLE DOUGLAS
DG7 3XS
Scotland, U.K.
T : +44 (0)1644 430 008
F : +44 (0)1644 430 009
post@naturalpower.com

Colin Sausman
Associate Director – Transmission Policy
Ofgem
9 Millbank
London
SW1P 3GE

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mailto:colin.sausman@ofgem.gov.uk

Dear Colin

Natural Power Consultants Ltd. Response to consultation 211/05 Enduring Transmission Charging Arrangements for Distributed Generation consultation: A discussion document.

Natural Power Consultants Ltd (NPC) are one of the largest wind power consultancies in the UK. Within the UK, on behalf of our clients, we have designed, consented, and constructed 170MW and have a further 500MW+ with planning consent which we intend to construct for our clients within the next 5 years. Our existing wind farms are connected to the Scottish Power and Scottish Hydro distribution areas. Our client's consented developments are designed by us for connection to the distribution network or the transmission system dependant on size and location.

NPC would like to thank you for the opportunity to participate in this discussion at the earliest possible stage. We have outlined our views on the issues which we believe should be addressed within this discussion on the following pages.

Introduction

It was a matter of frustration to NPC that the BETTA consultation did not address some of the issues whereby transmission and distribution policy and management interlink. We could see the need to address distribution connection and charging arrangements at that time and we made our opinions on this matter clear in our BETTA consultation responses. Now that BETTA is in place we are not surprised that distribution access arrangements and access to transmission networks has become a significant issue. It is important that this issue is given the appropriate level of consideration.

In relation to this subject we have ongoing concerns about the following issues:
Issue 1: *The difference in transmission voltage definitions between Scotland and England/ Wales*

NPC are developing projects throughout the UK. As a developer we see the differences in definitions in what is supposedly a GB market as, at best untidy and at worst discriminatory. Scottish based renewable generation will "see" the transmission system more quickly, and so bears a higher charge level. We would like to see a level playing field across the GB system. The interim discount established by Ofgem only partially covers this charging discrimination.

Issue 2: *Classifications of generator size, dependant on transmission area*

NPC also see the differing definitions of size dependant on location as potentially discriminatory. Whether a generator is defined by NGC as a small, medium or large power station, varies depending on which of the three transmission areas it is located in. This has significantly impacted our clients projects in cost and contractual terms. Several of our clients planned Scottish projects will be subject to significant delays in connection due to this definition. This would not be the case if a similar sized generation project was located in the England and Wales transmission area. There is a clear need to ensure that the unnecessary arbitrary boundaries are removed. Ideally there would be one set of definitions for the entire GB market.

Issue 3: *The current BEGA and BELLA arrangements affecting EELPS generators in Scotland*

NPC remain unconvinced by the BELLA and BEGA contracts. While Ofgem allowed an extension of the time when affected generators had to choose between the two alternative agreements, at the end of this time, our clients were little wiser about the commercial ramifications of the alternative choices. We remain of the view that this system is disproportionate, and that further work is needed to provide a more workable and equitable arrangement where embedded generation pays only for what it uses and for the level of system security it enjoys.

Issue 4: *High transmission charges that substantially add significant costs to generators*

This is a key issue for our clients. We were clear in our responses to the BETTA consultation that we believed there was a real danger that the level of charges set during BETTA for transmission connection would ultimately find their way to distribution connected generation. NGC and Ofgem were equally clear in stating that transmission charges do not apply to distribution connected generation. It is a worry therefore that one possible conclusion from this current discussion document would be to extend BETTA transmission charging this to distribution connected generators. Charges would be applied regardless of the level of transmission system use. We believe that any system of passing transmission charges through to distribution generators must reflect the actual level of use of the transmission

system by that generator, rather than applying a blind zoning approach. It is impossible for the generator to know how much of his electricity is being consumed within the local distribution network and how much is filtering through to the transmission system at any particular time (as this will be load dependant). Therefore the DNO must be involved in the determination of transmission charges for distribution generators. To let NG charge TEC for capacity which will never reach the transmission system would be to allow them a dominant market position.

To deal with the issues (1-4 above) our view is that Ofgem should consider the following actions:

Proposed action 1: *Revoking BELLA, BEGA arrangements.*

These arrangements should be replaced with agreements between National Grid and individual Distribution Network Operators (DNOs) for allowable export capacity through individual Grid Supply Points (GSPs). Transmission Entry Capacity (TEC) should be defined for individual GSPs, not individual distribution connected generators. This approach will (a) incentivise DNOs to actively and cost-effectively manage their networks, (b) avoid the administrative burden of greater numbers of generators contracting directly with National Grid, and (c) harmonise how transmission-distribution arrangements are established across the whole of GB.

Proposed action 2: *Harmonising generator classifications*

At the present time, a generator above 5MW in size in the Scottish-Hydro Electric Distribution Ltd (SHEDL) network area is treated as a large generator, while only generators above 100MW in England are treated as large generators. Whilst the networks within Scotland are of more limited capacity, many of the distinctions are arbitrary. It is not the rated capacity of a generator that is the issue for DNOs or National Grid, but its actual impact on the network, and primarily on individual GSPs. Therefore harmonising classifications, in tandem, with proposed action 1 will encourage management based on actual impact on the transmission system rather than a theoretical impact which never actually occurs.

Proposed Action 3: *Harmonising transmission definitions within GB*

At the current time 132kV lines in Scotland are defined as transmission. However, the time is rapidly approaching when the 132kV lines in Scotland functioning as transmission will have been upgraded to 275 or 400kV lines. At this point, a decision needs to be made on whether to reclassify 132kV as distribution. If this was undertaken it would (a) provide DNOs with greater network assets needed to ensure system stability and flexibility as they begin more active management of their systems, (b) remove inequality between Scotland and England/Wales and so mean that any rebate becomes unnecessary and (c) allow effective management of transmission across GB on one set of rules and criteria. Key here is that Ofgem undertake to consider 132kV issues as a part of this review and to commit to a full review of the 132kV definitions.

Please note that all of the above actions are required. Implementing any one in isolation could produce a disproportionate charging mechanism.

Managing the consultation process from here

To effectively do all the above, Ofgem must think carefully in how it takes forwards work from this consultation. It will be important that Ofgem actively leads on this issue, as only Ofgem has the authority to establish a set of rules that deliver consistency across the whole of GB and across different levels of the network.

We believe that history has shown a strong resistance by NGC to any significant changes in there current systems and have no reason to believe that the significant changes required as detailed above would be any different. Without the lead and long-term vision from Ofgem it is likely that only partial measures will be introduced which attempt to fix rather than solve the long term problems outlined within your consultation.

The current system for managing change consists of four main areas. Distribution Code, Transmission Code, CUSC and BSC. Again, experience has shown that these bodies do not communicate effectively where an issue falls into more than one category. We believe that this issue requires such fundamental change that any one of these bodies will not be capable of delivering a balanced approach.

Therefore we would like to see Ofgem add a further stage of work into this consultation timetable. It is our view that once Ofgem has received consultation responses, it should take time to review and revisit some of the key issues. In particular we would like to see further work as follows:

1. *Ofgem to establish a working group comprised of representatives from your own organisation, transmission and distribution operators and generators to review responses.*
2. *The working group to review consultation responses and highlight suggested alternate ways forwards for enduring arrangements.*
3. *Ofgem to issue a further consultation on alternate ways to establish enduring arrangements.*
4. *The working group to finish its work by reviewing responses from the 2nd consultation and offering conclusions to Ofgem.*
5. *Ofgem to issue Conclusions Document setting out its preferred route for establishing enduring arrangements.*

Further issues to be addressed

We are of the view that Ofgem has highlighted most of the relevant issues. However, there are a number of other issues which are relevant and need to be considered to ensure a rounded discussion takes place. In brief these are as follows:

Distribution Network Use of System Charges

Ofgem has indicated that it wishes all make all distributed generators liable for GDUoS charges from 2010. It is not yet clear how those generators who have previously paid for continuing connection and use of system via a capital payment will be dealt with, and there is no obligation on different distribution network operators to charge on an equivalent basis. Therefore generators are unclear whether the new GDUoS charges will bring any greater charging certainty across networks.

Contractual Obligations

There are differing contractual obligations in existence between network operators, owners and users. These different obligations carry a wide variety of obligations. Passing on an increasing level of contract obligation would add a disproportionate burden onto the resources of a small distributed generator than on larger transmission connected generators.

Plant Stock

Within GB there is a current lull in development of new generation projects, except for renewable generation. However, a number of plant closures are likely within Scotland, and this could have a profound change on the relative disposition of generation and charges.

Options to be considered as outlined in the discussion document

Ofgem has offered seven options for amending transmission charging and contractual arrangements. These are:

- Do Nothing
- De-energise plant that spills
- Amendments to the charging model
- Extend the DCLF ICRP model to parts of the distribution network
- Amend use of size definitions
- Create a consistent liability for charges
- Develop Agency models

Do Nothing

We accept that a do nothing approach is not appropriate, as it would fail to improve the cost reflectivity of charging arrangements relating to distributed generation, or to remove discrimination in charging and classification currently faced by Scottish generators.

De-energise plant that spills / Amendments to the charging model

We do not see that de-energising plant or making amendments to the charging model will resolve these matters. Such action would be clearly discriminatory.

Extend the DCLF ICRP model to parts of the distribution network

With regard to extending the DCLF ICRP model into distribution, we would note that DNOs have already indicated that they will look at developing location variable charging methodologies down to 33kV. However, any changes would not completely remove charging discrepancies within different DNO areas, so would be unlikely to create equivalence in charging.

Amend use of size definitions

In terms of amending size definitions, our experience of use of BEGAs and BELLAs is that they are a cumbersome means of resolving a problem. We would also challenge the purpose of a BELLA as we believe it does not actually provide the right of access required by distributed generators.

Because the classification of "large" generators starts at a low level in Scotland, there are now types of generator signing agreements which should, in any reasonable definition, not be required. This is creating significant extra work and cost for what would by any other definition be classed as a smaller generator. We note that when Ofgem considered this issue in preparation for BETTA this group of generator were referred to as "Smaller Generators". We would therefore accept amending use of size definitions, but only if this resulted in definitions in Scotland being scaled up so that small and medium definitions are brought into line with definitions in England & Wales and so fewer generators have to sign BEGAs or BELLAs. However, we are primarily of the view that the necessity of asking generators to sign such agreements is treating the symptom, rather than addressing the root cause of the problem.

Develop Agency models

From the above choices NPC prefer an Agency model. However, for the avoidance of doubt, we would like to be very clear in stating that we do not support the introduction of any new Agency to sit in between the DNO and NGC to manage DNO export capacity. This would be an un-necessary bureaucracy and could only add to costs for distributed generators and potentially for consumers.

NPC believe that the Agency approach would work best where the DNOs themselves act as "Transmission access managers". Managing distributed generation would be a part of this total role. However, controlling generation is just one method of controlling the flow from a distribution network to the transmission network at specific GSP's.

Doing this would ensure that the DNO could effectively manage their network assets, and provide the DNO with incentives to accommodate distributed generation, through gaining more income for use of distribution assets. It would

require some DNOs within England and Wales to become more active managers of their systems.

Establishing the DNO Agency model would also allow development of a “one-stop-shop” approach for generators. At the current time, most distributed generation in Scotland needs to understand distribution and transmission, and sign agreements and codes within each sphere. In applying for connection, it must also work with DNOs, the transmission owner *and* the transmission system operator. Currently many of these interfaces are managed by asking generators to sign BEGAs or BELLAs. We have already stated above our view that this approach is not working effectively.

A DNO Agency Model would allow DNOs to manage connection of generation and flows between distribution and transmission. This could be done most effectively at grid supply points (GSPs), and it is also worth noting that only those GSPs where there are power flows up as well as down would require management through an Agency type approach. At the heart of any “Transmission access management” agreement between the transmission system operator and the individual DNO would be agreement of the Transmission Entry Capacity (TEC) for each relevant GSP. It will then be in the interests of the DNOs to manage flows of electricity through these GSPs, and there will be an incentive on the DNOs to maximise utilisation of their networks - for example through management of intermittent generation - or through development of constraint agreements. Furthermore, this approach would encourage cooperation between individual developers and the DNO in the clustering approach that NGC is seeking to encourage within the transmission queue.

Setting 132kV as a distribution voltage would reduce the number of GSP’s in Scotland and give the DNO an ability to actively manage the load and generation with greater ease.

Addressing other issues

On 132kV related issues we would also like to make the following points. It is our view that the way in which 132kV is treated and use charged for in Scotland acts a barrier to attaining what we would view as a proportionate charging system. It is clear that Scottish generators connected at, or making use of the 132kV are in a discriminatory position when compared to similar generators in England & Wales. Rebates now in place do not fully compensate for this discrimination.

We would like Ofgem/National Grid to commit to a review of the definition and management of the 132kV system in Scotland. Assuming upgrades authorised by Ofgem take place (in particular the Beauly-Denny upgrade) there will come a time when it is inappropriate to define 132kV as transmission. We are of the view that the decision to do this can be made when a decision has been made by the Scottish Executive on whether to consent this upgrade. Re-definition should take place at the time when the proposed Beauly-Denny upgrade comes on-line. While

we recognise that Ofgem/National Grid cannot commit to make any change at this point, they should commit now to carry out a review at this point.

The 132kV definition is a priority area, because proper regulatory and contractual management of the boundary line between distribution and transmission is of critical importance in supporting connection of renewable generation to the UK network, and in effective utilisation of the network.

We would also like to point out the waste of resources in the current offers being made to renewable energy projects in Scotland. These offers are for a transmission system designed with double circuit 132kV lines up to a shared distribution hub. If 132kV were currently designated a distribution voltage then there would be no requirement for this double 132kV circuit. As a major renewable generator we would be happy to be connected on a single line. The over-design of this system at 132kV should be re-considered in the light of potential changes to the definition in future years.

On behalf of natural power consultants Ltd,

Scott Mackenzie