

David Haldearn
Director, Scotland and Europe
Office of Gas and Electricity Markets (Ofgem)
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London
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Friday 12th November 2004

Dear David,

BWEA Response: GB charging – consultation and impact assessment

BWEA was established in 1978 and is the representative body for companies active in the UK wind energy market. Its membership has grown rapidly in recent years and now consists of over 345 companies including all grid-connected wind energy and every company with a lease to develop offshore.

Wind energy is widely recognized as an abundant energy resource indigenous to the UK. Most commentators accept that wind is likely to represent at the very least half of the Government's '10% by 2010' target because of the maturity and low cost of wind powered generation relative to other forms of renewable electricity generation technologies. Continued growth of installed wind energy generation capacity beyond this 10% 2010 baseline is almost guaranteed.

BWEA welcomes the opportunity to respond to this consultation on GB transmission charges. This response has been prepared in collaboration with Scottish Renewables.

BWEA has responded to the previous NGC consultations on prospective GB transmission charging methodologies. I understand that all responses have been passed to you by NGC and trust that you will take our earlier responses into account.

Summary

BWEA continues to believe that the two options provided to you by NGC do not yet provide the appropriate balance between the interests of users of the transmission system and NGC's compliance with its licence objectives. BWEA continues to believe that the GB Use of System charging methodology should incorporate the following features:



- A single expansion factor;
- A non-locational security factor;
- A wider tolerance band to be used in the setting of zonal boundaries; and
- A G/D split of charges of 0/100

Of the two scenarios outlined in the consultation document, BWEA believes that Scenario A is preferable to Scenario B and that Scenario A better meets the relevant objectives. This is because scenario A incorporates a single expansion factor. However BWEA does not support Scenario A as it stands. We believe that it would be reasonable and practical to introduce a G/D split of 0/100 with the introduction of the new charging methodology as this would bring the UK into line with emerging European practice.

BWEA notes that neither scenario presented by NGC incorporates the non-locational security factor which was a feature of the England and Wales charging methodology until April 2004. BWEA strongly believes that the proposed locational security factor unduly increases the differentials in Use of System charges and results in charges that are of a greater magnitude than would be required in the pursuit of cost reflectivity. Some of our thoughts in support of this position are set out below.

BWEA strongly recommends that the agreed GB Use of System charging methodology incorporates a non-locational security factor.

Extension of the E+W charging arrangements

BWEA notes that NGC proposes to base the GB arrangements substantially on the existing arrangements in England and Wales unless there are differences in the characteristics between the Scottish and E+W systems. The NGC analysis concluded that the nature of the two systems is different (specifically that the Scottish system has more radial circuits and a large proportion of 132kV assets). However, their further analysis concluded that, since the England and Wales network already contains both radial circuits and circuits operating at 132kV, there is no reason why the Existing methodology cannot be applied on a GB basis.

BWEA disagrees with this analysis. The point is not that these features do not exist in England and Wales but that they exist in Scotland **to a materially greater extent**. It is our view that the two transmission systems are fundamentally different and that it is not appropriate to simply extend the existing methodologies.

We believe that this view is corroborated by the fact that Ofgem has, this week, consulted on the treatment of Licence Exempt generation in Scotland. If the transmission systems in both countries were not materially different then there would be no need for you to consider different arrangements for generation in Scotland

Compliance with Licence Objectives

BWEA notes that it will be a licence condition that the GB charging methodology should fulfil the relevant objectives. These are set out in the GB transmission licences. For the Use of System charging methodology these are:

- (a) that compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent

- therewith) facilitates competition in the sale, distribution and purchase of electricity;
- (b) that compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding any payments between transmission licensees which relate to [activities to be specified]) incurred by transmission licensees in their transmission businesses; and
 - (c) that, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses.

BWEA welcomes the clarification given by NGC at the developmental GB Transmission Charging Methodology Forum on 10 August that the two scenarios set out in the consultation each (as a package) should meet the relevant objectives but that each scenario addresses the individual objectives to a varying degree.

BWEA agrees that there is likely to be a creative tension between relevant objectives a) and b) in so far as any element of the methodology may promote competition or result in cost reflectivity. This was recognised by NGC in their April consultation where (on page 17) they stated "National Grid will always be required to make a trade-off between stability and precise cost reflectivity of charging."

In these instances BWEA notes that the objective to promote competition is an absolute requirement whilst the objective that delivers cost reflectivity is conditional as provided by the words "as far as is reasonably practicable".

BWEA notes, and disagrees with, NGC's assessment that these two objectives should take equal priority. BWEA generally supports the principle of cost reflective charging. However, where the charging methodology can provide charges that are predictable and stable we believe that this will best meet relevant objective a) and we therefore believe that where there is a choice between predictable, stable charges and cost reflective charges, it is clear that predictability and stability of charges must be given priority.

Impact on charges of the actions of third parties

BWEA notes that it is a feature of the proposed charging methodology that charges to an individual user of the system will vary over time in response to the arrival and/or departure of other users' generation and demand. This is, perhaps, only to be expected given the pursuit of cost reflectivity. However, as noted above we believe that there is a balance to be struck between cost reflectivity on the one hand and stability and predictability on the other. We do not believe that the proposed methodology will deliver an appropriate balance.

We note that in other recent regulatory initiatives, most notably in the introduction of shallow connection boundaries for the England and Wales system, changes have been approved that minimise the impact of third party actions. In the Authority decision letter on the introduction of shallow connection boundaries NGC are reported as saying "NGC considered that the sharing arrangements for connection assets could restrict competition as charges could be volatile and vary depending on the actions of other users or those of NGC." Ofgem concurred with this point and made the further point that the proposal improved NGC's compliance with its licence objective of non-discrimination.

BWEA therefore supports development of a charging methodology that minimises the impact of third party actions on a users charges. In the context of the two Scenarios presented in the consultation document this is best achieved by Scenario A.

Expansion factors

In NGC's consultation documents (and in their final proposals) two scenarios are presented. Scenario A includes a single GB expansion factor (or more accurately 2 two expansion factors: one for lines and one for cables). Scenario B includes multi voltage expansion factors. NGC's consultations concluded that Scenario B provides more cost reflective tariffs but that Scenario A provides more stable tariffs.

As discussed above, BWEA believes that predictability and stability of charges must take priority over cost reflectivity. BWEA agrees with NGC that a single expansion factor provides more stable and predictable charges whilst multiple expansion factors may provide greater cost reflectivity. **BWEA therefore strongly recommends that the agreed GB Use of System charging methodology incorporates a single expansion factor.**

Security Factor

BWEA does not support the continued approach of a locational security factor. Instead it would be more appropriate to incorporate the security element of any charge within the residual element as was the case until April 2004.

In our response to an earlier NGC consultation we set out a number of ways in which we believe that a residual security factor would be more cost reflective. Although NGC addressed these points in their subsequent consultation document, we disagree with their conclusions. We continue to believe that a non-locational security factor included within the residual charge is the appropriate approach.

We do not accept that the fact that a locational security factor happens to be a feature of the current charging methodology in England and Wales indicates that it is a beneficial feature of the charging mechanism. We note that in England and Wales the locational security factor was introduced as part of a package of measures and that Authority approval can only indicate that the package, as a whole, better meets the relevant objectives regardless of the benefits (or otherwise) of individual measures within the package.

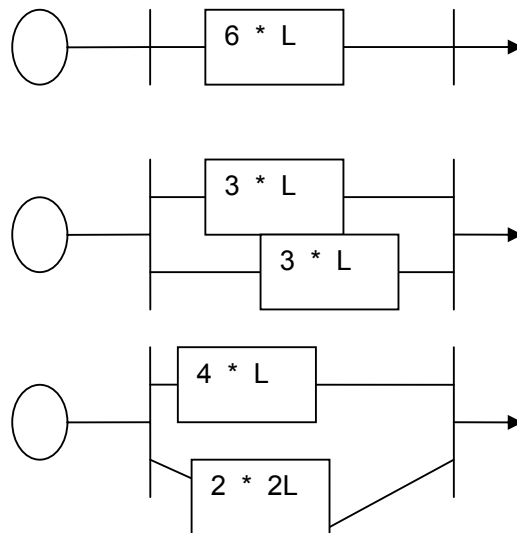
We set out below three of the reasons why we believe that it is inappropriate to incorporate a locational security factor in the GB Use of System Charging Methodology:

1. A locational security factor is not consistent with negative generation charges.

Security is required by all users of the transmission system and is invariably provided by the use of multiple circuits to provide redundancy. Since this will lead to a larger, and more expensive, system than theoretically necessary for an unsecured approach. Under a cost reflective approach, this additional expense should be borne by all users in return for the benefits of a secure system. This is achieved with the use of a non-locational security factor. However when a locational security factor is applied, those generators with negative charges do

- not contribute to the costs of the infrastructure that provides their security but are instead paid. This is a departure from cost reflectivity.
2. Use of the DC load flow model already incorporates an element of charging for security.

The DC Loadflow approach uses a model of the entire network to calculate nodal charges. As a result, the nodal charges are higher than they would have otherwise have been if calculated against an unsecured system. This is best demonstrated by considering the simple examples below.



In the first example, 6MW of generation is connected to a load by a single circuit of length L. The marginal MWkm is 6L

In the second example, the connection is secured by a second symmetrical circuit. 3MW flows down each circuit and the marginal MWkm is also 6L. In this example, the marginal MWkm is not affected by the addition of the second circuit and so does not reflect the additional security.

However, in the third example, the second circuit is not symmetrical but is instead of length 2L. Here, 4MW flows down the original circuit whilst 2MW flows down the longer circuit. In this example the calculated MWkm is 8L. The increase in MWkm and therefore the nodal charge is higher than the unsecured system to reflect the security provided.

Since the actual network is clearly not electrically symmetrical the third example is the one that best represents actual conditions. As a result, the nodal charges calculated by the DC loadflow model will already incorporate an element of charging for security. To apply a locational security factor therefore overstates the charges and is inappropriate.

3. The charges produced with a non locational security factor are less likely to result in legal challenge to the proposed charging methodology.

The indicative charges calculated by NGC for scenario B result in charges in Northern Scotland of £16.64 /kw/year. You have already received representations from Scottish generation to explain that charges at this level will prevent generation in this area. As Northern Scotland contains significant renewable resources, this approach will be inconsistent with Government policy to promote development of renewable generation. There is a significant risk that existing or prospective generation in Scotland will deem it necessary to launch legal challenge to the new charges. As this could delay the introduction of an approved charging regime under BETTA, this would create uncertainty for all users of the transmission system. This would be contrary to the relevant objective of facilitating competition.

However, the supplementary numbers provided by NGC and published in Appendix 3 of this consultation demonstrate that the application of a non-locational security factor would result in charges in Northern Scotland of £11.07 /kw/year. This figure is much closer to the charges that independent generation currently pays in Use of System charges to SHETL. BWEA believes that application of a charging methodology with a non-locational security factor is highly unlikely to lead to legal challenge of the methodology.

BWEA therefore strongly recommends that the agreed GB Use of System charging methodology incorporates a non-locational security factor.

Zoning Criteria

NGC's final proposals retain the criteria for establishing zones at the same level as is the case in NGC's existing charging methodology for England and Wales. That is that the nodal charges within a zone do not vary by more than +/- £1/kW.

In establishing a range of prices to be used in the calculation of zonal boundaries, one is faced with the familiar trade-off between the relevant objectives of promoting competition and delivering cost reflective charges. That is to say, a wider range would result in fewer and larger zones which would have more stable boundaries and within which charges could be more predictable. Conversely a narrower range would result in more, smaller zones but could be argued to be more cost reflective.

In keeping with the points we have made above, BWEA believes that the relevant objectives would be better met if the range was widened from its current level. Whilst too wide a range may result in too few zones to satisfy the pursuit of cost reflectivity, BWEA continues to believe that it would be instructive to model the impact of a doubling of the range to +/- £2/kW

G/D split

BWEA notes the proposal that adoption of Scenario B should incorporate a change to the split of charges between Generation and Demand. Although (as set out above) BWEA does not support Scenario B, this does not mean that there is no merit in amending this split.

BWEA notes that under Scenario B, NGC proposes to move to a G/D split of 10/90. BWEA also notes that other initiatives would effectively move this split further towards the demand side. In particular, the proposal by the DTI to reduce transmission charges

on some peripheral renewable generation and recover this cost from Suppliers will impact on the G/D split. The proposal by the DTI to limit distribution charges in some areas and recover this cost from Suppliers will have a similar effect as will the proposal by the DTI/Ofgem to provide transitional relief to small generators connected to the transmission system in Scotland.

The proposed retention of a 10% charge to generation appears arbitrary and it is possible that future amendments to the charging methodology may require further amendments to the G/D split. Since both NGC and DTI appear to now be comfortable with an adjustment to the current G/D split, BWEA believes that the introduction of the GB charging methodology is an appropriate time for charges in GB to be brought into line with common European practice of a G/D split of 0/100.

However BWEA recognises that to do this would not result in individual generator charges being set to zero but that, as today, there would be a range of positive and negative charges. BWEA believes that this approach will maintain the relevant objective of cost reflectivity.

Conclusions

This response sets out the BWEA view on several elements of the proposed GB charging methodologies.

In particular BWEA favours the use of a single expansion factor and strongly recommends that the approved Use of System charging methodology to be applied from BETTA go-live incorporates a non-locational security factor.

If you have any questions please feel free to contact me at any time.

Yours sincerely,

Richard Ford
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British Wind Energy Association