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Dear Richard

***Scottish Renewables Response to the National Grid consultation on GB Transmission Charging – Final Methodologies Consultation***

Scottish Renewables Forum is Scotland's leading renewables trade body. We represent over 120 organisations involved in renewable energy in Scotland. Further information about our work and our membership can be found on our website.

Firstly, thank you for the opportunity to respond to this second stage consultation on development of a workable transmission charging regime to operate under BETTA.

We support these principles and feel that they are worth restating (see Ofgem Factsheet 25, March 2003). BETTA will:

- "Bring more competitive prices and greater choice to all electricity customers, particularly those in Scotland and the fuel poor, and
- Mean that renewable and other generators, particularly in Scotland, will benefit from access to a wider British market."

Firstly SRF notes that much of the detail of the proposed methodologies remain as set out in the previous consultation. As set out in our response to the previous consultation, SRF continues to believe that these proposals do not yet provide the appropriate balance between the interests of users of the transmission system and NGC's compliance with its licence objectives, and we are frustrated that despite three consultation rounds discussion has not moved on substantially.

For the record it is worth stating that:

**Of the two scenarios outlined in the consultation document, SRF believes that Scenario A is preferable to Scenario B and that Scenario A better meets the relevant objectives.**



However, SRF 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**

### **NGC recommendation of final methodologies**

SRF notes that NGC have asked Ofgem for guidance on the appropriateness of the two scenarios proposed in the consultation but that such guidance has been denied. We understand NGC's position that it is appropriate for NGC to recommend a single methodology to Ofgem/DTI for approval. We note NGC's intent to hold the alternative scenario in reserve in case Ofgem is unable to approve the recommended scenario.

However it is unclear to us how Ofgem will manage the approval process. We are concerned that Ofgem/DTI may ultimately approve the recommended methodology even if (as a package) an alternative methodology would have better met the relevant objectives. We understand that the British Wind Energy Association raised this question at the recent meeting of the GB Developmental Transmission Charges Methodology Forum and understand that Ofgem may be able to provide guidance on their approach to their decision. However, such guidance is not yet available at the time of writing this response. This is unhelpful to say the least.

Ofgem have noted that it would be inappropriate for them to provide guidance. We disagree, because lack of guidance means that any NGC proposals you produce may prove misguided, and will mean that this three stage consultation and the last 9 months will have been in vain.

### **Extension of the E+W charging arrangements**

SRF 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. Your analysis concludes 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, your further analysis concludes 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.

SRF 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.

Furthermore, this consultation has effectively moved the goalposts in considering how charging scenarios relate to the 132kV issue and the agreed rebate accepted by Ofgem/DTI in their May 2004 "Small Generator Issues under BETTA" conclusions document.

Ofgem/DTI concluded that a rebate should be paid to 132kV connected small generators based on the residual charge. In the 2<sup>nd</sup> stage consultation on charging from NGC, this residual element came out at £3.41/kW for Scenario A, and £2.48/kW for Scenario B.

The current methodologies consultation has revised the residual charge so that it would now be as low as £1.26 for Scenario B. This low residual charge means that if Scenario B is adopted 132kV generators in Scotland will be further discriminated against compared to English and Welsh 132kV connected generators, and Ofgem's agreed rebate will count for very little.

### **Charging Impacts on Distribution Connected Generators**

We are concerned that the issue of charging distribution connected generators for their use of the transmission system remains ill-defined. At our "Rewiring Scotland" grid conference on the 14<sup>th</sup> September this issue was put to NGC, who were unable to give a clear answer about the extent to which such generation projects might be affected in the future.

While your consultation notes that initially licensed exempt embedded generation that "spills" onto the transmission system will not pay TUoS charges, we remain concerned that this issue is under review and the position may rapidly change post 1 April 2005, or when new distribution use of system charges are developed.

As well as having significant numbers of small generators connected at 132kV (see above) and therefore exposed "earlier" to transmission charges, in parts of Scotland – particularly the SHETL area – there are areas where the amount of generation exceeds demand. Here, generators need access to the transmission system. As such a significantly higher proportion of generation in Scotland could face the proposed transmission charges, than will be the case in England and Wales.

Until NGC have fully costed out and analysed the impact of this, we feel that it will be difficult for NGC to have confidence in their understanding about economic impact and charging balance. Much here remains in doubt and clarification on this is a matter of priority.

### **Compliance with Licence Objectives**

SRF notes that it will be a licence condition that the GB charging methodology should fulfil the relevant objectives. These are set out in the Ofgem/DTI consultation on near final 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.

SRF 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.

SRF 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 in your April consultation where (on page 17) you stated

“National Grid will always be required to make a trade-off between stability and precise cost reflectivity of charging.”

In these instances SRF 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”.

SRF notes, and disagrees with, your assessment that these two objectives should take equal priority. SRF 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**

SRF 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.

SRF therefore supports development of a charging methodology that minimises the impact of third party actions on users' charges.

### **Expansion factors**

In the consultation document 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. The consultation concludes that Scenario B provides more cost reflective tariffs but that Scenario A provides more stable tariffs.

As discussed above, SRF believes that predictability and stability of charges must take priority over cost reflectivity. Expansion constants are used as a proxy for the cost of providing additional capacity on the network. We continue to believe a single expansion constant is the correct approach in economic terms.

We also believe NGC's proposed approach is perverse and discriminatory in failing to adjust the 275kV expansion constant in the same way as the 132kV constant has been adjusted.

SRF therefore believes that the GB charging methodology should incorporate a single GB expansion factor.

## **Security Factor**

SRF 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 only a few weeks ago.

In our response to the previous consultation we set out a number of ways in which we believe that a residual security factor would be more cost reflective. Although you have addressed these points in this consultation factor, we disagree with your 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 is a feature of the current charging methodology in England and Wales indicates that it is a beneficial feature of the charging mechanism. You will recall that the locational security factor was introduced as part of a package of measures and 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.

## **Zoning Criteria**

The proposed GB charging methodology retains 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, SRF 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, SRF continues to believe that it would be instructive to model the impact of a doubling of the range to +/- £2/kW

## **G/D split**

SRF 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) SRF does not support Scenario B, this does not mean that there is no merit in amending this split.

NGC have used the current E&W model as a basis for setting the initial GB charges. Necessary changes to the model include the addition of the Scottish transmission network data into the model. Had the Scottish network comprised simply 275 and 400 kV network then no changes to the model specification would have been involved. However, since the Scottish transmission system also includes 132kV network, parameters in the model had to be extended to cater for this new voltage.

In extending and reengineering the model, it has become clear that not all of the features of the model can be retained if it is to be extended to Scotland. In both the preferred option and the alternative option, fundamental changes have been made to the methodology.

- In option A, the only change is to use a single expansion constant for each route section, representing the costs of a new 400kV circuit (overhead line or underground cable depending on the existing route configuration).
- In option B the ratio of generator and demand charges has been arbitrarily altered to 90% demand, 10% generation to avoid demand charges going negative.

There is no economic rationale for the arbitrary redistribution of costs in option B. NGC have normally justified each decision regarding model parameters with their view as to how it might better comply with their licence obligation. However, no such justification is presented as to why a 90/10 split is correct. It is simply the proportion that demand customers would have to pay to avoid north of Scotland demand charges being negative. Negative demand charges in the GB model only occur when multi voltage expansion constants are used.

In their previous consultations, the split of charges in the multi voltage model has moved from 73/27 in their December 2003 consultation, to 80/20 in April 2004, to 90/10 in this consultation. These readjustments serve to make their consultations less transparent, since the two options are not directly comparable. They also serve to increase the expectations of E&W generators of significant reductions in their charges, when NGC appear to have no authority to move away from the 73/27 proportions currently applying in E&W.

In any case, the split between generation and demand charges is essentially a regulatory decision, rather than an economic one. Indeed, there are European arguments for the charges to fall 100% on demand. Whatever the regulatory decision is on the correct ratio, we believe the same should be applied to both options.

SRF notes that under Scenario B, NGC proposes to move to a G/D split of 10/90. SRF 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.

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, SRF 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 SRF recognises that doing 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. SRF believes that this approach will maintain the relevant objective of cost reflectivity.

### **Charging Stability**

We believe that NGC have failed to take into account issues of stability and cost reflectivity concerns that have been raised. Common sense suggests that existing and new generators in the same area should pay the same transmission charge. It also suggests that the charge actually paid should become *lower* as new generators are connected to the existing system

because the same total revenue is spread over a greater number of contributors. This would be a genuinely cost-reflective and stable model.

However, under NCG proposals the exact opposite will happen, and both option A and option B result in *higher* charges to both existing and new generators in Scotland. This is because the effect of the model is to make them bear extra charges in anticipation of possible future costs of expanding the transmission system capacity. Other generators' charges are reduced since the overall income from generators remains unchanged.

In both options, generators in other areas would receive the benefit not only of the increased charges to existing Scottish generators, but also the charge to new generators.

However, of the two options A is more stable than option B, particularly at the extremities of the system. Greater stability results in greater predictability and hence lower risk for participants. If generators, particularly renewable generators, perceive a lower risk as a result of the tariff methodology, then this will clearly facilitate their project finance, and in turn will facilitate competition in generation, which is a fundamental objective of the tariff methodology, and indeed the licence.

### **The Economic Impact of Proposed Charges and consideration of Island Communities**

While we recognise that NGC's responsibility is to come up with a workable charging methodology, we feel that it is worth highlighting the potential impact of such charges on renewables and the emerging market in Scotland.

If Scenario B is selected, we calculate that Scottish based generation – while making up only 9% of GB generation will pay 73% of GB charges. Scenario B therefore represents a significant burden the renewables industry in Scotland. While resource levels may be higher, and the ROC market buoyant, we would contend that such increased charging will damage projects, lessen the likelihood of GB renewables targets being met, and undermine confidence in projects from financial institutions.

Furthermore, the current methodologies under consultation only consider generation in mainland GB and Scotland.

There is significant interest in communities such as the Western Isles, Orkney and Shetland, in developing major wind, wave and tidal energy projects. While necessary upgrades will be needed to realise this potential, we risk jeopardising such projects before they can begin with the proposed charges. It has been calculated that proposed charges would be as high as £70/kW if applied to generation on Scotland's islands.

Such high charges would frustrate any generation, effectively ending the need for the transmission upgrades currently in discussion. In Ofgem's August 2004 consultation on "Transmission Investment for Renewable Generation" Ofgem conclude that the case for upgrades to Shetland, Orkney and Western Isles has not yet been proven but "depends on the economics of wind generation on the Scottish islands." (p.27)

Transmission charges of up to £70/kW would undoubtedly affect the economics of planned projects, and would therefore negate the need for upgrades. The above statement, in conjunction with high transmission charges, would therefore seem to be a self-fulfilling prophecy.

Please note, that we have avoided use of figures in this consultation, as we find their use diversionary, and stops discussion of the key issues. We have seen figures produced by

Ofgem, NGC and Scottish grid companies, which are divergent in nature. NGC might conclude that potential impact to generation in Scotland is irrelevant, as Scotland will become just one part of the GB system, and its key concern is a methodology that can be applied objectively. However, given the extent of the change proposed, this is not how changes are being viewed in Scotland.

It is clear that proposed charges for renewable generators will be substantially higher than current charges. Perhaps at this point we should return to our opening statement on the principles of BETTA. BETTA will “[Mean that renewable and other generators, particularly in Scotland, will benefit from access to a wider British market](#)”.

It is worth recalling that under the existing arrangement renewables generators tend to sell into the Scottish market, because they seek to avoid high interconnector charges. At present therefore, renewables operators are faced with increasing charges, meaning for Scottish renewable operators, if not for conventional generation, BETTA will lead to higher costs for the renewables sector in Scotland. Our membership therefore sees the access to a wider market as a reform that is coming at an unacceptably high cost. We would therefore see such charges, as being against the overall objectives of BETTA.

### **Developing a Longer Term Methodology**

Finally, may we note that our experience of dealing with this issue through numerous meetings and consultation rounds, has demonstrated clearly to us that the English-Welsh methodology, while adequate for the English-Welsh market, is ill-suited to being stretched over the substantially larger market that BETTA will create.

We reject the argument that the methodology will be suitable for GB because it worked for E&W. Adding Scotland onto England-Wales has fundamentally changed the geographical shape (the network is now twice as long but no wider) and technical structure (an extensive 132kV network and greater proportion of 275kV in Scotland) There are also historic and current differences in both design and operating standards of the network. NGC have not satisfactorily resolved the ongoing problem of this lack of homogeneity in two networks now being fused together.

While we have been frustrated at Ofgem’s lack of guidance to NGC, we have been further frustrated by Ofgem’s lack of commitment to look at the longer term need for charging reform. While minds are focussed on BETTA go-live, we need a commitment that charging reform will be a key priority for Ofgem post-BETTA go-live, and we would urge NGC to support our call to Ofgem that this takes place.

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

Yours sincerely



**Maf Smith**  
Chief Operating Officer