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Dear Stuart,

### **Consultation on GB Transmission Charging**

SSE continue to believe that NGC's DC Load flow model is deeply flawed when extended across GB. In particular, it has become clear that a methodology that appears to work reasonably well for the compact, highly meshed NGC grid, where routes of any significant length are at 400kV, is entirely unsuited to the more radial Scottish network comprising extensive 275kV routes and also including the lower voltage 132kV system.

We therefore believe it essential that the parameters of the model are carefully chosen to ensure stability of tariffs and less extreme charges than those that appeared in NGC's initial consultation. This will ensure that competition in generation is not frustrated and that NGC is not in danger of breaching its licence obligation to facilitate competition. We commented on this in more detail in our previous response, and we would urge NGC to consider these points in bringing forward final charges.

If NGC are nonetheless determined to proceed with the options set out in this latest paper, we believe that using a single expansion constant for all voltages, as proposed under scenario A, and using a non-locational security factor would better meet NGC's licence objectives than the alternative.

Our detailed comments on the particular aspects of the GB Charging methodology are set out below. You will appreciate that these comments are made on a without prejudice basis and we reserve the right to amend these views as the process develops or exercise any remedy available to us to protect our position.

## **Issues outside the Scope of the Consultation**

NGC have stated that certain issues related to the methodology are outside the scope of the consultation. However, we do not believe that the scope of the consultation can simply be limited to the effect of rolling out the NGC methodology across GB. In particular, the methodology must continue to achieve its relevant objectives. It is therefore essential that NGC take into account the comments of existing and potential users in developing the arrangements where these might impact on NGC's other responsibilities.

For example, several respondents have raised the issue of the stability of charges over time. An overriding obligation in setting tariffs is to facilitate competition in generation and supply, and we continue to believe that the DCLF model is inconsistent with that objective. For example, generators that are faced with very volatile, punitive prices that are highly sensitive to decisions of other market players are unlikely to be able to obtain project finance. This cannot be considered to be facilitating competition in generation.

A further dimension is that of developments in Europe, particularly the Renewables Directive. The DTI intend to assume powers to provide a discount to renewable generators in peripheral areas to avoid potential breach of this directive. However, even this mechanism could be challenged on the grounds of discrimination against other generation in the same area. A mechanism which avoids all these pitfalls is clearly desirable.

We therefore believe stability of charges over time to be a highly relevant consideration in designing a tariff model, and that extreme price signals should be avoided to ensure compliance with licence obligations and the European Directives. These objectives could possibly be achieved through careful selection of the model parameters, in particular the expansion constant and the security factor. A further possible mechanism for ensuring stability, or at least capping the liability for charges, is to impose a range restraint on the charges, as proposed by another respondent to the earlier consultation.

## **Connection Issues**

NGC have requested independent verification of ownership boundaries and it is not clear why this is required. In SSE there are very clear principles set to define where the ownership boundaries lie. Any differences between boundaries simply reflect the differing way the systems were carved up at vesting, and have developed since. BETTA does not require revision to ownership boundaries of existing assets. We believe that any legacy issues can simply be dealt with through the bilateral connection agreements. However, there may be transitional issues with connection offers that have been made using the current SHETL methodology, but which will

connect under the NGC methodology. This will need to be dealt with when migrating the connection offers to the GB methodology.

### **Use of System**

Our general objections to the methodology notwithstanding, we continue to hold the view that the use of multi voltage expansion constants does not reflect the likely upgrade paths for additional capacity. There are many capacity upgrade options that are available before resorting to new build, which the expansion constants are based upon. NGC's submission to the recent RETS consultation is ample illustration that significant capacity increments can be released by reconductoring and uprating before new construction is considered. Also SSE's submission to the same consultation illustrates that where new build is necessary, 400kV construction is the most economical, even when the existing route is 132kV.

NGC appear to believe that the problem with using multi voltage expansion constants is restricted to the 132kV network. However, as illustrated above, the extensive 275kV network in Scotland poses a problem since NGC use an expansion constant of twice the 400kV figure, even though, in many cases, the 275kV line can release significant increments in capacity without the need for new build.

We therefore firmly believe that, with this TNUOS methodology, a single expansion constant is appropriate. This would also go some way to alleviating the problems of instability and negative demand charges resulting from the multi voltage model.

NGC have highlighted a further potential problem with the model, which is absent in the current Scottish models. This relates to the contribution by embedded generators exporting onto the transmission system. In SSE's area, embedded generators whose authorised capacity exceeds the minimum demand on the related Grid Supply Point (GSP) are liable for TNUOS. The methodology ensures that embedded generators pay a fair share of actual transmission infrastructure costs, not potential future costs.

However, for NGC to admit that this part of the model is flawed without recognising the other shortcoming is inconsistent.

### **Generation Zoning**

The zoning criteria seem arbitrary and are likely to have a particularly bizarre effect in Scotland going forward. This further underlines the need to address the stability of charges produced by the model.

## **Security Factor**

NGC have expounded a rationale for reducing the security factor fractionally. However, the derivation of this figure is still not transparent, and we do not believe the use of a locational security factor is justified. This is particularly so when other factors in the model such as the expansion constant overstate the locational effects. We therefore do not believe the use of a further adjustment in the guise of a security factor can be justified on the grounds on cost reflectivity or transparency.

## **Hydro Benefit**

Further to the DTI's proposals to replace hydro benefit with a subsidy to the distribution company, we agree that the charge should be recovered through a non-locational commodity charge.

## **Negative Demand Charges**

We agree that negative demand charges would be a perverse incentive on customers to use electricity at times of peak demand. This further illustrates the flaws in this type of model and can easily be avoided by choosing suitable model parameters. For example, the use of a single expansion constant in this scenario would ensure that, initially, there are no negative demand charges. However, the combination of a single expansion constant and a non-locational security factor would provide more stable and less extreme charges with little or no risk of negative demand charges.

If you have any questions or require any clarification of the above points, please give me a call.

Yours sincerely,

Rob McDonald  
Director of Regulation