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Dear Colin,

**Enduring transmission charging arrangements for distributed generation
A discussion document
September 2005**

Thank you for the opportunity to respond to this discussion document. This response is submitted on behalf of ScottishPower's Energy Wholesale Business which includes ScottishPower Energy Management Ltd, ScottishPower Generation Ltd and CRE Energy Ltd.

ScottishPower notes that much of the discussion document focuses on charging arrangements. This is welcome given the potential large impact on the value of our current and future embedded generation facilities. However, before considering this important charging issue we believe that priority should be given to addressing the issues surrounding the overall commercial and operational framework within which embedded licence exemptible generation operates in all parts of Great Britain. Our experience as a developer and operator of embedded power stations leads us to believe that a set of arrangements is required which is certain and simple, provides commercial freedom for the generator to choose the best option for its circumstances but, at the same time, provides the lowest possible costs and, preferably, allows a generator registered in SMRS to deal only with the host DNO without having to deal also with National Grid.

I hope that you find these comments useful. Should you have any queries on the points raised, please feel free to contact us.

Yours sincerely,

Mike Harrison
Commercial Manager, Trading Arrangements
ScottishPower Energy Management Limited

ENDURING TRANSMISSION CHARGING ARRANGEMENTS FOR DISTRIBUTED GENERATION

SCOTTISHPOWER ENERGY WHOLESALE BUSINESS RESPONSE

1 Summary

- 1.1 ScottishPower's experience as a developer and operator of embedded power stations leads us to believe that a set of arrangements is required which is **certain** and **simple**, **provides commercial freedom** for the generator to choose the best option for its circumstances but, at the same time, provides the **lowest possible costs** and, preferably, allows a generator registered in SMRS **to deal only with the host DNO** without having to deal also with National Grid.
- 1.2 We believe that it will be necessary for Ofgem to take a more proactive lead in developing the necessary framework, either through a more extensive programme of consultations or through an industry working group, as it seems to us to be unlikely that any industry party will be able to propose all the changes which may be required to achieve a satisfactory structure to accommodate the effects of distributed generation on the transmission system.
- 1.3 We note that much of the discussion document focuses on charging arrangements. This is welcome given the potential large impact on the value of our current and future embedded generation facilities. However, before considering this important charging issue we believe that priority should be given to addressing the issues surrounding the overall commercial and operational framework within which embedded licence exemptible generation operates in all parts of Great Britain. We believe that the real issue which should be the focus of the discussions is the control of flows onto the transmission system which originate in embedded power stations which do not hold transmission access rights.
- 1.4 However, when considering possible changes to the framework it should be recognised that a large amount of investment has been made under the historic frameworks in Scotland and England and Wales and under the new BETTA framework since 1 April 2005. Retrospective application of any new arrangements which follow the current review would further increase the perceptions of regulatory risk in this sector of the industry and would further impede the achievement of Government targets for renewable energy production and carbon reduction.
- 1.5 It must also be recognised that some elements of the existing framework, e.g., supplier settlement at GSP Group level, would be difficult and costly to change. Any proposals for change must address real problems and demonstrably provide benefits which outweigh their costs.

2 Process

- 2.1 As Ofgem has demonstrated in sections 2 and 3 of the discussion paper, consideration of the transmission charging arrangements for distributed generation is taking place within a complicated contractual and charging structure and at a time when a number of interrelated developments are in progress. There is clearly a wide range of issues to be considered and consequential changes may be required to licences, codes, contracts and charging arrangements.

- 2.2 Ofgem has stated that a further document will be published in early 2006 which will summarise responses to the current document and outline Ofgem's provisional thoughts on the way forward. We do not think that this will be sufficient input to the process from Ofgem to enable all the issues and complex interrelationships to be resolved. It seems to us to be unlikely that any industry party will be able to propose all the changes which may be required to achieve a satisfactory structure to accommodate the effects of distributed generation on the transmission system due to the range of documents which may require to be changed. Nor do the fragmented governance arrangements facilitate the discussion and development of holistic solutions to complex issues such as this. Furthermore, agreement amongst industry parties on issues such as this is likely to be difficult to achieve given the parties' diverse commercial positions on the issues under consideration.
- 2.3 We believe that it will be necessary for Ofgem to take a more proactive lead in developing the necessary framework, either through a more extensive programme of consultations or through an industry working group. In this regard we note that Ofgem has been leading the development of new distribution commercial arrangements through industry working groups; a similar process may be appropriate in this case.

3 Transmission arrangements for distributed generation

- 3.1 We are disappointed that Ofgem appears to believe that the issue which has to be addressed is primarily the charging of distributed generation for use of the transmission system. There is an underlying theme in the discussion paper that all distributed generation affects the transmission system because the effect on the transmission system of an injection of 1MW is the same whether the injection takes place on a distribution network or on the transmission network and that, as a consequence, all embedded generation should be charged for use of the transmission system. To equate "affecting the network" with "using the network" seems to us to be a gross over-simplification and to charge all embedded generators is neither necessary nor desirable.
- 3.2 We believe that the discussions should address the overall commercial and operational framework within which embedded licence exemptible generation operates in all parts of Great Britain. We believe that the issue which should be the focus of the discussions is the control of and commercial framework for flows onto the transmission system which originate in embedded power stations which do not hold transmission access rights. It is this issue, and the problem which National Grid believes this presents, which has caused so much concern to developers and operators of distributed generation in Scotland and triggered the proposal of CAP093. The current form of TEC is a firm right; embedded generators do not necessarily require the same type of rights as do transmission connected generators; non-firm access rights, possibly restricted to times other than system peak, may be more appropriate and the availability of such rights would reduce transmission investment requirements and hence costs to customers. We see no merit in incurring additional investment costs and forcing all embedded generators to become BM Units. The contractual framework and associated charges should be developed to accommodate both types of access right.
- 3.3 We accept that licensable distributed generation (at the current licence threshold) should continue to be required to participate in the central market mechanism and contribute to the costs of the transmission network. The licence thresholds are currently uniform across GB; this should continue to be the case.
- 3.4 Arrangements for exemptible distributed generation should allow the generator to choose between alternative frameworks, but the implications of each choice should be clear. If the

generator preferred to have firm access rights or wished to trade actively in the central market arrangements then the generator would sign a BEGA and register in CMRS. Alternatively, the generator could register in SMRS with no firm transmission rights. It is this part of the framework which requires further development.

- 3.5 The gap in the current arrangements needs to be filled by a mechanism which allows National Grid to restrict the export onto the transmission system of power which originated in embedded power stations which have no firm rights. However, restrictions should only be imposed when the embedded generation spill would cause additional costs to be incurred on the transmission system. If no additional costs are being incurred then the flow should be allowed and, under a cost-reflective charging methodology, no charges should be imposed.
- 3.6 Restrictions should be imposed through the DNO and would not attract compensation as the originator of the flow would not hold firm rights. Within the DNO system, demand could be notionally allocated to embedded generators in their order of connection. Generation would therefore be curtailed on a last in, first off basis. This enhanced role for the DNO, effectively becoming a Distribution System Operator, will require appropriate control arrangements to be put in place between the DSO and the generator, although it should be noted that the energy which is being curtailed belongs to a supplier.
- 3.7 The DSO would need to provide information about the current and projected notional allocation of demand to embedded generation in the long-term development statement. This would allow the risk of curtailment for any particular existing or future project to be assessed by the generator and supplier when agreeing power purchase arrangements and be reflected in the contract price. The generator will therefore be able to make a straightforward commercial decision between CVA and SVA trading in the full knowledge of the costs and benefits of each.
- 3.8 Were a GSP to spill at the time of system peak then the DNO should be charged accordingly.
- 3.9 Generators which choose to register in SMRS will not need an interface with National Grid and can deal with their host DNO/DSO on all technical, operational and commercial matters.

4 Implementation

- 4.1 It should be recognised that a large amount of investment has been made under the historic commercial frameworks in Scotland and England and Wales and under the new BETTA framework since 1 April 2005. Retrospective application of any new arrangements which follow the current review would further increase the perceptions of regulatory risk in this sector of the industry and would further impede the achievement of Government targets for renewable energy production and carbon reduction. It would be particularly important to ensure that any retrospective application did not cause generators' rights to be reassessed against a planning background other than the one against which they were originally assessed.

5 Comments on specific options outlined by Ofgem

Option 1 – Do nothing

- 5.1 We do not believe that this is a tenable option. The uncertainty which surrounds the inadvertent spill onto the transmission network by an embedded generator under the current framework needs to be addressed. Additionally, the burden placed on 132kV connected small generators in Scotland needs to be relieved.

Option 2 – De-energise plant that spills

- 5.2 De-energisation should be regarded as the ‘nuclear’ option. However, control of flows from embedded generation which does not hold firm transmission access rights is, we believe, the key issue which needs to be addressed. Our views on this are outlined above.

Option 3 – Amendments to the charging model

- 5.3 We continue to believe that full embedded benefits should be available to 132kV connected small generators in Scotland in order that they can compete on an equal footing with their counterparts in England and Wales. In the absence of full benefits we believe that the burden of TNUoS charges on these generators needs to be relieved. This could be done by introducing a separate tariff for these generators which relates only to the costs of the 132kV network in their host area. They would then incur charges for the 132kV network which were comparable with the GDUoS charges faced by their counterparts in England and Wales, albeit that they would still not be able to trade in SVA.

Option 4 – Extend the DCLF ICRP model to parts of the distribution network

- 5.4 We see no merit whatsoever in this option. As noted above, we believe the main issue to be addressed is one of control of flows on the transmission network. Distribution and transmission networks are provided for different purposes, have different characteristics and cost drivers and, apart from our concerns regarding 132kV connected small generators in Scotland, their tariffs should be derived accordingly.

Option 5 – Amend use of size definitions as the basis for charging and contractual arrangements

- 5.5 As Ofgem has noted, the use of arbitrary size definitions leads to clustering at levels just below the thresholds. Amending the use of size definitions as the basis for charging and contractual arrangements would not, however, address the gap which exists in the current arrangements. It would merely force more generators to enter into BEGAs and lead to clustering below different thresholds. While “*the rationale for thresholds which vary between geographic areas*¹” may be unclear to Ofgem now, it was, alas, perfectly clear to Ofgem/DTI during the development of BETTA and their extension into charging and contractual arrangements would add to the existing discrimination against such generators in Scotland. As outlined above, we would prefer to see comprehensive sets of alternative arrangements such that a generator’s decisions can be made on purely commercial and technical grounds without arbitrary thresholds needing to be considered.

Option 6 – Creating a consistent liability for charges

- 5.6 This option appears to be founded on the premise that the effect on the transmission system of an injection of 1MW is the same whether the injection takes place on a distribution network or on the transmission network and that the correct response is therefore to charge all embedded generators for use of the transmission system. While this may appear to be a neat solution to a charging problem it does not address the control of spill which we

¹ Paragraph 5.27

believe to be the issue which should be addressed, nor any of the contractual issues regarding access. Nor would the charges reflect the different costs which might be imposed on the transmission system by generators with firm rights and those without. This option would still rely on a threshold, does not address the use or non-use of the transmission network by individual power stations and would, we believe, be extremely complex to administer.

Option 7 – Agency models

- 5.7 As noted above, we believe that the DNO has a role to play, as a DSO, in solving the problem of spill from embedded generators which do not hold firm transmission access rights. However, we do not believe that the DSO should normally be involved in holding TEC, having BM Units or being involved commercially in any National Grid/supplier/embedded generator relationships associated with the transmission network, although the DNO agency model would be preferable to one which required each power station to contract individually with National Grid and pay charges based on installed capacity. We believe that an independent DSO would be an unnecessary complication and see no merit in having a combined TSO/DSO.