Wiseenergy Response to Small Generators Issues under BETTA

14 January 2004

This response is a formal response by and on behalf of Wisenergy. It represents the views of Wisenergy, rather than its clients, although it may be that those views will converge on much that follows.

1. Generation has, in general, not fared well under NETA. Only recently have forward prices risen sufficiently to bring enough mothballed plant back into service to provide NGT with an adequate winter plant margin. Given that Scotland is a major contributor of generation to the England and Wales market, it would seem unwise to load costs onto Scottish generation.

2. It is widely acknowledged that effective competition in both generation and supply in Scotland has been severely constrained by the present structure of the Scottish industry – although that same structure has allowed the existing Scottish generators to supply (presumably profitably) to the supply markets in England and Wales, and also Northern Ireland.

3. The England and Wales market acknowledges that the networks(both transmission and distribution) do not perform exactly the same function throughout the area. There are parts of the 132kV network in England and Wales that perform a transmission function – but in the interests of a consistent (if not quite level) playing field, all 132kV is classed as distribution. In the forthcoming BETTA market, we are told that as the majority of the 132kV system in Scotland performs a transmission function, it should be regarded as transmission. However, the logic of a single market is surely that the same conditions apply throughout – otherwise, within NETA, the 132kV system in, perhaps, Cumbria might have been defined as transmission, as this was its primary function. If the BETTA market is to be all-GB (which is its declared objective) then shouldn't the market conditions be consistent throughout that market?

4. The system within the licensed area of Scottish Hydro-Electric has for a long time differed significantly from the rest of Great Britain, so that there are a large number of small generators (usually hydro) connected at 33kV; to a great extent, the 132 and 33kV networks here perform a dual function.

5. It is likely that Great Britain will see a major increase in the use of smaller generation (renewable, cogeneration, fuel-cells, as well as modest-sized 'conventional' generation). For these to operate successfully, they must be able to compete and operate in a consistent marketplace.

6. Wisenergy acknowledges that, for a variety of reasons, it may be sensible for the 132kV system in Scotland to be operated by the GBSO. (This could equally apply to parts of the 132kV system in England and Wales). However, there does not seem to be any overriding reason why, because 132kV in Scotland is operated by the GBSO, it has to be for transmission. It could be distribution, operated by the GBSO as agent for the distribution licensee. With the increase in number and location of smaller generators, it is likely that the boundary between transmission and distribution will become increasingly blurred, and there is therefore a need for a market structure that is not dependent on a distinction that could rapidly diminish. Such an arrangement would reflect the 'dual purpose' role of the 132kV network, as well as providing a consistent set of market conditions throughout Great Britain.

7. An alternative to the above would be to treat the Scottish 132kV network as transmission in view of the purpose it serves, whereupon it would be logical for sections of the 132kV system in England and Wales to be similarly classified. If this is to be done, then it becomes essential (in the interests of fair competition) for all small generation to be treated the same way. The simple route here would

be to treat all generation less than 100MW as distribution-connected for charging purposes, including both connection and use-of-system charges. This would have the following benefits:

7.1. It would be totally consistent throughout the GB market.
7.2. It would be easy to understand.
7.3. It would be entirely transparent.
7.4. It would be easy to implement.
7.5. It would relieve the GBSO from much of the work involved in dealing with small generation which may in fact be of little significance individually – the GBSO could instead concentrate on the wider picture.
7.6. It could be applied long-term, thus providing an element of consistency in the treatment of smaller generators, thus reducing regulatory risk.

8. Small generators inevitably have limited budgets, with severely limited scope to absorb changes to the cost base cause by changes in market structure. Arrangements such as those proposed in (7) above have the merit of simplicity, and can be dealt with entirely separately from 'large' generation. It should be borne in mind that, post-BETTA, the closure of just one or two large generators in Scotland (perhaps due to high TNUoS charges rendering such generators uneconomic) could remove the generation surplus and turn Scotland into a net importer. As this would not change the totality of TNUoS charges at all, other generators would have to pay. Small (ie, less than 100MW) generators, whose location is typically dictated either by the presence of its parent industry and/or heat load, or by the presence of its renewable energy source (ie,wind,wave,hydro) cannot by its nature react to locational pricing signals, and is unlikely to be able to absorb significant increases in its operating costs. Treating all such generators as 'embedded' for fiscal purposes eliminates the risk from those generators who are least able to bear it, and who are themselves too small to influence the market, and thus have no means of defence.

9. The treatment of connection charges for smaller generators needs to be harmonized. There is presently a considerable variation in the costing of connection charges. In England and Wales, generation connected at 132kV and below pays a 'deep' capital connection charge, but pays no DUoS charge. They can obtain 'Embedded Benefits' from the provision of a number of ancillary services, and from selling their output to a supplier trading beneath the same GSP, thus reducing that Supplier's exposure to Triad costs. In Scotland, generation connected at 132kV not only has to pay transmission charges (generator TNUoS), it can confer no embedded benefit. In addition, access to embedded benefits by generators connected to the distribution system (33kV and below) is difficult, and less than transparent. There is no effective ancillary services market in Scotland.

The position of the GSP in Scotland (at the 132/33kV interface) generally means that the load on a GSP in Scotland is very much lower than that on a GSP in England and Wales; where embedded generation exceeds the demand, and the GSP 'exports' to the transmission network the generator, in addition to having paid a 'deep' connection charge, also becomes liable to generator TNUoS. There is a need to harmonise the arrangements, such that small generators pay similar (and predictable) charges wherever they are situated, and however the 132kV network is classified. In a single GB market, they should also have similar opportunities, for example eligibility to embedded benefits, or access to ancillary services markets. As noted elsewhere in this response, the differing uses to which the 132kV network is put in various parts of Great Britain need not be a barrier to this. A further barrier often faced by smaller generators in that of significant sums in the connection charge to cover the cost (for example) of uprating busbars, replacing switchgear to allow a higher fault level, or replacing protection systems. In Scotland, this can even occur when a distribution-connected generator triggers the need to upgrade a protection system on part of the transmission network. Given that distributed generation (whether as renewable generation, or cogeneration or, in areas of net import, local or peak-lopping generation) is currently government policy, it seems unreasonable to expect the first such generator to connect in any given area to fund the total cost of

this work – especially as a second generator could then get an almost free ride. It is suggested that small generation should pay the direct – and local – costs of its connection (ie, a shallow connection charge) with other costs met by all users of the system – including consumers.

10. Consistent treatment of small (ie, less than 100MW) generators (both across GB, and over a longer time frame) will also make it possible for such schemes to obtain project finance, as their costs will be, to a reasonable degree, predictable. The present proposals could expose small generators to the risk of major (and, to them, uncontrollable) cost variations. This can only result in such schemes becoming impossible (or, at best, very expensive) to finance.

11. Stabilising the treatment of small generators as proposed also has the benefit that it will encourage renewable generation to come forward. Transmission reinforcement required in remote areas for 'small' renewable generation thus becomes a system charge, payable pro-rata by all users/customers. This would seem appropriate for the development of a type of generation which is called for by government (ie, national) policy.

12. It would be possible to extend the 'small generator' arrangements to renewable generators larger than 100MW, by means of an Order founded on the European Community Directive on the promotion of electricity produced from renewable sources.

13. Regarding all 'small' generation as embedded for fiscal purposes also results in them all being treated equally insofar as CUSC, TNUoS and BSUoS are concerned, though they could still retain the option to sign CUSC, and thus become treated as transmission-connected, should they wish. It is likely that this would only be the case for small generators who have a significant ancillary services capability, where the ability to sign CUSC would help the development of the ancillary services market.

14. To conclude, the proposals outlines in this reponse:

- Place all small generation on an equal footing.
- Allows 132kV systems to be treated as distribution or transmission, according to their function.
- Protect small generators from the activities of the larger,against which they presently have no defence.
- Align with Government and EU policy on renewables.
- Facilitate the creation of BETTA as an all-GB market with a level playing field.
- Simplify the market for smaller players.
- Allocate costs equitably.
- Are clear, transparent, market-based, and understandable.
- Provide confidence for financiers of smaller generation schemes.

Kind regards

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