

10<sup>th</sup> April 2007

Robert Hull  
Director of Transmission  
Ofgem  
9 Millbank  
London SW1P 3GE

Dear Robert

**ZONAL TRANSMISSION LOSSES – ASSESSMENT OF PROPOSALS TO MODIFY THE BALANCING AND SETTLEMENT CODE**

Lewis Wind Power Ltd (LWP) welcomes the opportunity to comment on issues raised by the above assessment and consultation published in February 2007. LWP is a joint venture between British Energy Renewables Ltd and AMEC Wind. The views expressed in this consultation response are those of LWP. Refer to separate response from British Energy and Amec as appropriate.

**Lewis Wind Power firmly considers that on the basis of the evidence presented within the impact assessment none of the proposed and alternative modifications can justifiably be implemented by the Authority. Furthermore, the consultation process itself is fundamentally flawed and Ofgem should rectify those flaws before issuing their ‘minded to’ statement.**

**Headline Messages:**

- We are concerned that the RIA fails to consider/quantify the impact of the proposals on particular types of generators, particularly renewable generation which will be significantly adversely affected. Given the nature of the operating regime of these plants the imposition of zonal losses will have no impact on the running of these plants (i.e. no consequent re-dispatch). As a result, with no credible option to mitigate the risks, these plants will simply be faced with increased costs.
- As indicated in the RIA, the implementation of a zonal losses scheme will have a significant financial impact on renewable generation in the North of Great Britain (the area with greatest wind resource). One of the effects of zonal losses will be therefore be to transfer part of the value of environmentally friendly renewables schemes in the North to southern generation which by and large is environmentally damaging fossil generation. Consequently, not only would a zonal losses scheme run counter to the Government’s stated energy policy (and indeed European energy policy) but also introduce a new cross-subsidy. Further more, the proposals will de facto contravene the requirements of EU Renewable Energy Directive (2001/77/EC) which states that ‘Member States shall ensure that the charging of transmission and distribution fees does not discriminate against electricity from renewable energy sources, including in particular electricity from renewable energy sources produced in peripheral regions, such as island regions and regions of low population density’. The proposals would significantly discriminate against Scottish generation plants the bulk of which are renewable energy plants.

- The RIA fails to assess the impact of any of the losses schemes on distribution system operation. A significant volume of renewable generation is connected and is likely to be connected in the future to distribution systems.
- In all decisions taken, GEMA/Ofgem should be mindful of the need to facilitate the integration of the GB market with other EU markets. In particular, if an effective France-UK-Ireland regional market is to be developed and UK competitiveness is to be maintained, major differences in transmission charging methodologies and/or levels (including for losses) across the region need to be removed. The introduction of zonal losses would move the GB market further away from other major European markets and hence hinder the development of an integrated EU market.

### **Detailed comments on Locational decisions of Renewables:**

- Paragraph 4.15 states in relation to long-term impact that ‘The introduction of zonal loss charging by encouraging more efficient locational decision-making could have a positive impact on the environment’. However, no firm evidence to support this possibility is provided, and 4.16 and 4.19 confirm the uncertainty.
- The RIA acknowledges Renewables are more likely to connect in the North, because that is where the best resources are located. However, the RIA goes on to state that zonal loss charging will encourage development in the South. De facto the Authority is acknowledging that Renewables will in the main be differentially penalised if they are sited where the resources are best and their operation will be most efficient. This is contrary to the EU Renewable Energy Directive stipulations.
- We consider the logic of the arguments set out in paragraphs 4.20 to 4.29 to be flawed. The conclusion that zonal charging will have a very marginal financial impact on renewables and unlikely to affect build rate is based on the Oxera work. As set out below, we consider this work to be flawed in a number of respects and hence the conclusion invalid.
- The fact that TNUOs charges are higher than the likely zonal loss charges (4.20) and because Renewables face delays in planning permission and obtaining access to the transmission system (4.23), does not lead to a conclusion that impact of zonal charging is not significant as stated in 4.23. These are separate issues and are being addressed elsewhere. The cost of developing and using Renewables depends on the technology. Some technologies are struggling to compete in the market place at present and zonal losses will simply represent another cost and uncertainty.
- The assumptions set out in 4.27 and 4.29 on the reduction in carbon emissions due to the proposals ignore any increases resulting from renewables in the North being discriminated against and the disincentive that presents. Flaws in the supporting analysis (see below) have led to these erroneous conclusions.
- Remote communities who seek to develop or rely on renewable energy as a means to diversify income streams will be penalised by the proposals. The RIA does not consider these potential impacts.

### Other key points:

- The additional regulatory uncertainty caused by the imposition of a zonal losses scheme based on short term loss factors and with no opportunity to hedge the position, will affect the cost of capital of all industry participants. NERA's paper 'Regulatory Risk and the Cost of Capital' for Teeside Power, submitted with their responses to P198 and P200 consultations in June 2006, supports this view. Ofgem's impact assessment fails to consider (or even acknowledge) this analysis.
- Ofgem has relied heavily upon Oxera modelling performed for the BSC assessment of the proposals. This modelling only related to issues relevant to the BSC objectives (for example by explicitly excluding any assessment of environmental issues). It also includes significant approximations in its representation of the GB market, and the results are clearly subject to considerable uncertainty. For these reasons, we consider its conclusions insufficiently robust to be relied upon by Ofgem/GEMA in making a decision on the merits of any of the proposals.
- Although it is not clear, the TLM values produced by Oxera and used by Ofgem in its impact assessment apparently exclude the effect of fixed losses. If this is the case, any consultee using these values to estimate the material impact of the changes compared to current levels will significantly underestimate the effect of these schemes. This is a serious flaw in the consultation process and should be corrected before the formal decision-making process proceeds any further.
- The Oxera methodology for estimating the benefits of the schemes is extremely unclear. However, it appears that the net value of losses savings estimated by Oxera (and included in tables 2.3b and 2.3c of the impact assessment) may not include the offsetting effect of the more costly (southern) generation necessarily despatched to reduce the losses. If this is the case, the estimated net benefit is clearly over-estimated
- The RIA has ascribed environmental benefits to P198/203 which are nothing to do with those schemes themselves and should therefore be struck out of the analysis. Instead these benefits (if they exist at all) are merely a consequence of what happens to be the current distribution of generation fuel types, and not an enduring feature of any of the losses schemes. Furthermore, we consider the environmental 'benefits' claimed by Ofgem in the RIA to be significantly over-stated. The differential between coal and gas prices in the UK is almost always going to be too large for there to be a switch between fuels (eg. northern coal to southern gas) solely as a result of zonal loss factors. Whilst there may be some switching at the margin from more efficient, lower cost coal or gas plant in the North to less efficient, more expensive plants using the same fuel in the South, any significant switching between fuels is extremely unlikely.
- The impact assessment has ascribed potential long term benefits to the losses schemes beyond 2015/16 with very little evidence. We do not believe that this can be justified and these benefits should be ignored.

- All of the modification proposals use a load flow model that allocates each node to a zone of the transmission network and then averages and scales the raw nodal marginal factors to calculate zonal TLFs. The implication of this averaging on the loss factors to be applied to individual plant may actually bear little resemblance to the plant's nodal loss factor, and hence its contribution to overall losses on the system. This issue was analysed by the BSC Modification Group and their analysis demonstrated that variations within zones could be significant. This is a significant weakness in the model.
- It is argued by Ofgem that a zonal losses scheme will introduce additional locational signals to market participants over and above those that exist already e.g. through the TNUOS Charging methodology. However, the analysis presented highlights a number of instances where the signals provided by the two mechanisms contradict. This together with the fact that both signals will change (potentially significantly) on an annual basis increases regulatory risk, is detrimental to market confidence, a barrier to new entry and potentially anti-competitive.

### **Consultation and Decision Making Process:**

Given the significant nature of the opposition to these proposals from the BSC Panel, from within the electricity industry itself, and from organisations representing both large and small customers, and given the history of Ofgem's previous attempts to introduce zonal losses, a decision to implement any of the proposed schemes is likely to be highly controversial. The final decision on these proposals (if indeed it is to implement a scheme) should therefore be taken by the full Gas and Electricity Markets Authority and not be delegated to Ofgem.

It is also imperative that Ofgem facilitates the fullest possible consultation process. In this context, we welcome Ofgem's indication that there will be an opportunity to comment on a 'minded to' statement in due course, and we would ask Ofgem to ensure that adequate time is allowed to prepare those responses. In addition, we would also urge Ofgem to publish (either at the same time as the 'minded to' statement, or ideally earlier) all the responses to the present RIA consultation so that we (and others) will have the opportunity to review, comment on, and, if appropriate, rebut or endorse (and perhaps incorporate) points made in other respondents' submissions.

I trust you will find these comments helpful. I would be happy to clarify any aspect of our response with you should you wish.

Yours sincerely

**Simon Baker**

For and on behalf of Lewis Wind Power Ltd  
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