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Dear Robert,

**Zonal transmission losses – the Authority’s ‘minded-to’ decisions
Consultation
June 2007**

Thank you for the opportunity to comment on the Authority’s ‘minded-to’ decisions and reasons for those decisions on the four modification proposals (P198, P200, P203, P204) and two alternatives (P198 Alternative and P200 Alternative) to the Balancing and Settlement Code (BSC) to alter the rules under which the costs of transmission losses are allocated to users of the electricity transmission system. This response is submitted on behalf of the UK energy businesses of ScottishPower, namely ScottishPower Energy Management Ltd, ScottishPower Generation Ltd and ScottishPower Energy Retail Ltd.

We do not consider that the reasoning set out in the ‘minded-to’ decision is sufficient for the Authority to approve modification proposal P203 which the BSC Panel rejected by a significant majority and which was supported by only 2 of the 25 respondents to the impact assessment.

The additional analysis undertaken by Ofgem has not addressed the concern, raised by us and a number of other respondents to the impact assessment, that the Authority is relying on modelling undertaken by OXERA that significantly overestimates the likely reduction in transmission losses resulting from the zonal allocation of losses. The validation exercise undertaken by OXERA was limited to the transmission loss factors calculated by their model and did not address the crucial factor of the extent of changes in generation output pattern as a result of short-term despatch decisions being influenced by these loss factors, principally from coal generation in the north to gas generation in the south. The estimated levels of redespach from coal to gas are fundamental to the cost-benefit analysis and the estimate of the environmental benefits. They are more crucial now that the Authority is minded to approve P203 which has estimated benefits due to generation redespach, with seasonal loss factors, significantly greater than those for P198, with annual loss factors, with the additional benefits varying significantly year on year. The estimated redespach is greatest at periods of low demand and we question whether the snapshot modelling technique used by OXERA is capable of modelling behaviour at these periods.

The additional analysis has also seriously underestimated the total generation cost for wind generation when assessing the impact of the zonal allocation of losses on renewable generation in the north. The Government's 2006 report on the Energy Review 'The Energy Challenge' quotes total generation costs for onshore wind at £(50-65)/MWh compared to Ofgem's figure of £22.69/MWh. The Government's range for offshore wind is £(55-90)/MWh compared to Ofgem's value of £31.53/MWh. These values entirely negate Ofgem's conclusion that even with the highest locational transmission and zonal losses charges wind generation in the north remains competitive.

Almost half of the respondents to the impact assessment questioned the robustness of OXERA's analysis and a significant majority recommended the Authority to reject all of the zonal losses proposals. If the Authority is to come to a different conclusion to the industry from the results of the modelling then it requires to demonstrate to affected parties that the estimates of the benefits are sufficiently robust to justify the change. If the Authority shares the industry view that the benefits are uncertain then there is no case for change.

The Authority has failed to recognise that on the basis of the modelling and analysis presented to it P200 Alternative would provide similar estimated benefits to P203 without the significant cost transfers, estimated at £80m for P203, and thus the proposed action exceeds that which is necessary to achieve the efficiency benefits. It is not clear from the 'minded-to' decision document if the Authority was made fully aware of the estimated benefits from P200 Alternative compared to P203. The document suggests that while it might be expected that preserving the marginal signal would preserve the efficiency benefits this would tail off but fails to make it clear how the estimated benefits from P203 tail off to the extent that from 2011 to 2015 the losses savings average only around £1m per annum. The document also argues that the cost transfers are not disproportionate since parties are not currently paying charges that reflect their contribution to losses but in our view proportionality should be judged against the degree of change from the status quo.

We do not consider that the allocation of average marginal losses to all generation is cost reflective. The document accepts that locational charges do not fully reflect the physical reality but rather the marginal economic impact. In our view base load generation required by the System Operator to satisfy local demand should not be allocated marginal losses. Under the current trading arrangements there is no longer a capacity payment to encourage required base load generation to be available and thus such generators should not be penalised on their output. It has been recognised that it is not appropriate to charge full marginal losses to all generation and thus average marginal losses at 50% of full were proposed. However in OXERA's analysis the generation across the northern generation zones is only 10% above demand and thus average marginal losses are inappropriate.

Ofgem does not agree that there will be an impact on competition in the European wholesale market but considers that competition is best fostered by parties paying charges that reflect their impact on the system. However if the definition of cost reflectivity being applied to GB generators is different to that being applied to generators in our major neighbouring member states then competition will be impacted. France, Belgium, Netherlands, Germany and Spain all have losses allocated on an average basis and have no plans to introduce zonal losses.

Our response to the detailed questions in the consultation are set out below.

I hope you find these comments useful. Should you wish to discuss any of these points further then please do not hesitate to contact me.

Yours sincerely,

Alex MacKinnon
Regulation and Trading Arrangements Manager

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ScottishPower response

Responses to the impact assessment

Question 1: Do respondents consider that we have appropriately summarised the key themes of the responses to Ofgem’s impact assessment on zonal losses?

A number of the key themes we highlighted in our response have not been identified in the summary. These are:

Some generators and suppliers will be faced with significantly increased costs while the overall benefits are uncertain. The estimated level of benefits from implementation of each of the options is dependent on the accuracy of the modelling while the level of costs transferred between generators and between suppliers is determined by the option chosen.

Nuclear and much renewable generation by their nature are located distant from load and population centres and being self despatch and run as base load will not be affected by redespach. They will thus be significantly adversely impacted with no change in behaviour.

All of the proposed modifications were overwhelmingly rejected by the BSC Panel, the body considering the modifications on behalf of the industry.

It has also not been made clear that energywatch are opposed to all of the proposed modifications.

Question 2: Are there any other themes which respondents consider should have been highlighted?

A number of key themes raised by other respondents which we believe are important have not been highlighted. These include the inconsistency of the zonal signals, contradictions that can occur between zonal losses signals and actions taken by the System Operator and transparency on the information provided to the Authority for it to make its decision.

Additional analysis

Question 1: Do respondents consider that the additional analysis we have provided addresses the concerns expressed by respondents to the impact assessment regarding analytical gaps in the impact assessment?

The additional analysis has not addressed the year-on-year variation in despatch benefits calculated by OXERA and the variation in the additional benefits from P203 compared to P198. Ofgem has attributed this variation to the snapshot approach used by OXERA and the feedback effect between market behaviour in one year and the loss factors applicable to the next. However no additional modelling has been undertaken to assess how much of the variation can be attributed to each factor. The extreme volatility for P198 gives cause for concern and there is no satisfactory explanation as to why this volatility has been reduced for P203 when it might be expected to have increased with loss factors changing quarterly rather than annually.

The additional analysis has also seriously underestimated the total generation cost for wind generation when assessing the impact of the zonal allocation of losses on renewable generation in the north. The Government's 2006 report on the Energy Review 'The Energy Challenge' quotes in Annex B total generation costs for onshore wind at £(50-65)/MWh compared to Ofgem's figure of £22.69/MWh for north onshore wind. The Government's range for offshore wind is £(55-90)/MWh compared to Ofgem's value of £31.53/MWh for north offshore wind. These values entirely negate Ofgem's conclusion that even with the highest locational transmission and zonal losses charges wind generation in the north remains competitive.

Question 2: Do respondents consider that there are any remaining aspects of the modification proposals that require to be addressed analytically?

The additional analysis undertaken by Ofgem has not addressed the concern, raised by us and a number of other respondents to the impact assessment, that the Authority is relying on modelling undertaken by OXERA that significantly overestimates the likely reduction in transmission losses resulting from the zonal allocation of losses. The validation exercise undertaken by OXERA was limited to the transmission loss factors calculated by their model and did not address the crucial factor of the extent of changes in generation output pattern as a result of short-term despatch decisions being influenced by these loss factors, principally from coal generation in the north to gas generation in the south. The estimated levels of redespach from coal to gas are fundamental to the cost-benefit analysis and the estimate of the environmental benefits. They are more crucial now that the Authority is minded to approve P203 which has estimated benefits due to generation redespach, with seasonal loss factors, significantly greater than those for P198, with annual loss factors, with the additional benefits varying significantly year on year. The estimated redespach is greater at periods of low demand and we question whether the snapshot modelling technique used by OXERA is capable of modelling behaviour at these periods.

Question 3: Do respondents have any additional analysis in relation to the impact of the modification proposals that they wish to bring to the attention of the Authority?

The fact that a majority of respondents consider the benefits highlighted by OXERA to be overstated, uncertain or small should be taken by Ofgem as a pointer that more analysis and validation is required.

Stage one – Assessment against applicable BSC objectives

Question 1: Do respondents consider that the modification proposals have been appropriately assessed against the applicable BSC objectives?

We do not consider that P200 and P200 Alternative have been appropriately assessed against applicable BSC objective (a) – efficient discharge by NGET of the obligations imposed upon it by its electricity transmission licence. The Authority's view that the hedging scheme discriminates in favour of existing generators at the expense of new generators is not consistent with the view it has taken on discrimination in other instances nor with the EU Emissions Trading Scheme which allocates free carbon allowances to existing generation. On the contrary P198, P198 Alternative, P203 and P204 all discriminate in their treatment of existing generators compared to new generation in that existing generators are subject to windfall gains and losses.

We do not accept that any of the modification proposals will have a significant impact on the efficient, economic and co-ordinated operation of the GB transmission system.

We do not agree with the Authority's view that on balance each of the proposals would better promote effective competition in the generation and supply of electricity. Zonal losses will not

impact the wholesale price for electricity since even if significant redespach occurs, which we do not think will be the case, marginal plant in the south with more expensive fuel costs will replace marginal plant in the north with cheaper fuel costs with no significant impact on the marginal price setting the wholesale price. Thus generators in the north will be required to absorb the increased costs of losses for all of their plant, not just their marginal plant, thus reducing their profitability. Conversely generators in the south will benefit from reduced losses costs and thus increase their profitability. This allocation of a marginal signal to all output including base-load distorts competition in the GB electricity wholesale market. The geographical differences in the costs incurred by suppliers will not distort competition in the GB electricity retail market since all suppliers competing to serve a customer will be allocated losses based on the location of the customer and thus will face the same costs which can be reflected in the price quoted to the customer.

We do not consider that any of the modification proposals promote efficiency in the implementation and administration of the balancing and settlement arrangements since they introduce additional cost, complexity and volatility with no significant benefits.

Question 2: Do respondents consider that there are any aspects of the modification proposals that have not been adequately assessed in relation to the applicable BSC objectives?

We do not consider that the effects of the volatile signals that zonal losses will introduce have been adequately assessed. The feedback effect between market behaviour in one year and the zonal loss factors used in the subsequent year leads to inappropriate market signals and the adverse impact this could have on the GB wholesale market has not been investigated.

Stage two – Assessment against applicable BSC objectives when those are considered collectively

Question 1: Do respondents consider that the Authority has appropriately assessed the modification proposals against the applicable BSC objectives when considered collectively?

We do not agree with the Authority's views that P198, P198 Alternative, P203 and P204 better facilitate the achievement of the applicable BSC objectives overall, compared with the existing provisions of the BSC.

We agree with the Authority's views that P200 and P200 Alternative do not better facilitate the achievement of the applicable BSC objectives overall, compared with the existing provisions of the BSC.

Question 2: Do respondents consider that there are any aspects of the modification proposals that have not been adequately assessed in relation to the applicable BSC objectives when considered collectively?

As stated above we do not consider that the effects of the volatile signals that zonal losses will introduce have been adequately assessed.

Stage three – Assessment against Authority's legal duties

Question 1: Do respondents consider that the Authority has appropriately assessed the modification proposals against its duties?

We do not agree that the modification proposals will significantly reduce transmission losses through short term redespach or through locational decisions.

The estimated reduction in carbon emissions as a result of fuel switching from coal generation towards more gas generation is we believe significantly overstated.

Ofgem's assessment fails to make it clear that zonal losses will increase the costs for GB renewable generators as a whole.

We do not agree that any of the modification proposals are likely to affect the size of the transmission grid nor that hedging may result in inefficient decisions regarding parties' use of the system which could affect the efficiency of the GB transmission system as a whole.

We do not agree that the introduction of locational loss charging arrangements will result in generators making more efficient decisions regarding their use of the GB transmission system.

We do not consider that zonal losses will impact security of supply.

We agree that all of the modification proposals would have a minimal impact on the ability to secure that all reasonable demands for electricity are met.

We do not agree that modification proposals P203 and P198 are more likely to secure a diverse and viable long-term energy supply than the other proposals or the status quo.

We do not consider that P200 and P200 Alternative have been appropriately assessed against the European law principle of non-discrimination. The Authority's view that the hedging scheme discriminates in favour of existing generators at the expense of new generators is not consistent with the view it has taken on discrimination in other instances nor with the EU Emissions Trading Scheme which allocates free carbon allowances to existing generation. On the contrary P198, P198 Alternative, P203 and P204 all discriminate in their treatment of existing generators compared to new generation in that existing generators are subject to windfall gains and losses.

The Authority has failed to recognise that on the basis of the modelling and analysis presented to it P200 Alternative would provide similar estimated benefits to P203 without the significant cost transfers, estimated at £80m for P203, and thus the proposed action exceeds that which is necessary to achieve the efficiency benefits. It is not clear from the 'minded-to' decision document if the Authority was made fully aware of the estimated benefits from P200 Alternative compared to P203. The document suggests that while it might be expected that preserving the marginal signal would preserve the efficiency benefits this would tail off but fails to make it clear how the estimated benefits from P203 tail off to the extent that from 2011 to 2015 the losses savings average only around £1m per annum. The document also argues that the cost transfers are not disproportionate since parties are not currently paying charges that reflect their contribution to losses but in our view proportionality should be judged against the degree of change from the status quo.

Question 2: Do respondents consider that there are any aspects on the modification proposals that have not been adequately assessed in relation to the Authority's duties?

We do not consider that the effect of the varying windfall gains and losses for generators from each of the proposals has been adequately assessed in relation to the Authority's duties.

We also do not consider that in assessing the modification proposals against the requirements of applicable European law the Authority has recognised the effect of a different definition of cost reflectivity being applied to GB generators to that being applied to generators in our major neighbouring member states.

Stage four – Assessment against the principal objective

Question 1: Do respondents have any comments on any of the issues set out in this chapter?

We do not agree with the Authority's reasoning that rejection of all of the modification proposals is not the best option.

We do not consider that losses will decrease significantly as a result of any of the modification proposals and thus that there will be any significant efficiency benefits.

In relation to discrimination we do not accept that the current arrangements are discriminatory and that any of the proposals promote or further non-discrimination.

In relation to competition we consider that each of the proposals will distort wholesale competition to varying degrees but will have no significant impact on retail competition.

We do not consider that any of the proposals will have a significant environmental impact.

We do not consider that any of the proposals will result in a decrease in wholesale prices which will pass on to consumers.

We agree that the implementation costs for all of the proposals are not large.

Conclusions and way forward

Question 1: Do respondents wish to raise any specific issues regarding the Authority's minded to position?

We do not consider that the reasoning set out in the 'minded-to' decision is sufficient for the Authority to approve modification proposal P203.

Question 2: Do respondents have any views on both the process and timetable that are proposed for the Authority making its final decisions on the modification proposals and for publishing those decisions?

The additional analysis commissioned and undertaken by Ofgem and reported on in the 'minded-to' decision is not in our view sufficient to answer the concerns of the majority of respondents to the impact assessment that the benefits highlighted by OXERA which form the basis of the Authority's 'minded-to' decision are overstated, uncertain or small and do not justify such a significant change from the status quo. If the Authority in its final decision continues to come to a different decision from the industry then further demonstration is required that the estimates of benefits are sufficiently robust to justify the change.