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By email

## **TAR Call for Evidence - RES response**

### **Introduction**

This is the response from Renewable Energy Systems to Ofgem and BERR's call for evidence to the Transmission Access Review (TAR) dated 16th August 2007.

Renewable Energy Systems Group ("RES") is a leading UK based developer of renewable energy projects. A wholly owned subsidiary of Sir Robert McAlpine Ltd, RES has developed and constructed over 1500MW of wind energy projects worldwide with a further 1200MW currently under construction. In 1992 RES developed the UK's second wind farm at Carland Cross in Cornwall. RES has developed and constructed 200MW wind energy projects in the UK and has a UK portfolio of over 1000MW in various stages of development.

### **Summary**

The existing arrangements for transmission access have not kept pace with changes in the demand for access nor changes in Government policy. They do require reform. A fundamental change is required as incremental reform has already proven unable to make appropriate improvements in the required timescales. In addition; the level of change that is now appropriate is greater than can reasonably be achieved by a series of incremental changes.

The auctioning proposals set out in the Call for Evidence are not suitable; not least because they create distortions in the wholesale electrical energy market.

RES strongly supports introduction of **Connect and Manage** arrangements and encourages Ofgem and BERR to take the necessary steps to introduce this at the earliest opportunity.

### **Questions posed in the call for evidence**

#### **Chapter 3 Question 1: Do you consider that there is a need for change to the existing transmission access arrangements?**

RES is convinced that fundamental reform is necessary. The existing processes for providing transmission access are rooted in the arrangements established on the privatisation of the electricity industry in 1990. Whilst it can be argued that the arrangements were fit for purpose at the time, this is no longer the case.

There are a number of well documented issues that demonstrate the inadequacies of the current arrangements. A few of these are set out below.

- There is an increasing volume of renewable generation that could already be generating but which is awaiting connection.
- Projects with connection offers have no certainty that the connection dates will be honoured.
- The network operator is unable to be proactive in planning network reinforcements in anticipation of new connection applications – for example in Mid Wales.

The current system is leading to a delay in achieving the existing renewables targets. Without reform grid constraints are likely to be a continuing barrier to timely achievement of targets. It is clear to RES that the UK will need to do more than the current renewables generation target of 10% in 2010 and the aspiration of 20% by 2020.

The Government's energy policy as set out in Appendix 2 of this call for evidence notes that: *"Our aim is to connect new renewable generating capacity to the electricity network as quickly and as cost-effectively as possible"*

This aim is frustrated by the existing transmission access arrangements.

### **Chapter 3 Question 2: Do you agree with our assessment Criteria?**

There are a large number of assessment criteria set out in the call for evidence. A number may be mutually incompatible and conflicts will arise in trying to satisfy multiple criteria simultaneously. It will therefore be necessary to prioritise the criteria. It is important that priorities are set at the beginning of the review as the chosen priorities will affect the conclusions.

RES proposes that the Government's 20% aspirational target for 2020 should be paramount and that the consequential requirements for transmission access and options to achieve it are then considered. Once the options are established attention should turn to ensuring that they can be implemented in the most cost-effective manner.

RES believes that this review should undertake to achieve the government's targets in a timely manner and define structures that could go beyond the Government's 20% aspirational target for 2020.

### **Chapter 3 Question 3: Is the concept of sharing transmission capacity (i.e. having less transmission capacity for a given amount of connected generation) the right approach to explore?**

A common understanding of the concept of sharing transmission capacity is required to answer this question. RES does not support the presumption that transmission capacity is a limited resource that should be "shared" if such sharing is manifest as the purchase of temporary rights to utilise the network.

However RES strongly supports the implication that, in future, for a given volume of generation the appropriate amount of transmission capacity should be lower than that presently defined by planning standards.

It is self evident that there will be more low load factor plant, not just intermittent renewables but also operation of conventional plant at lower load factors. In these circumstances the current framework for transmission access is no longer realistic.

With a greater volume of installed capacity but with each individual generator having a lesser requirement of the transmission network in terms of MWh generated over the year there will be an implicit "sharing" of transmission capacity.

**Chapter 3 Question 4: Do you consider that there is an issue with the property rights associated with TEC as set out in the CUSC?**

In general, the key elements of the property rights associated with TEC are, and will continue to be appropriate. Any arrangement for transmission access should confer the following core ‘rights’:

- i) plant to remain energised
- ii) ability to export power
- iii) be compensated if network constraints limited ability to generate.

Certainty of access is a fundamental requirement to drive plant investment and these three rights should be maintained.

RES believes that currently TEC is, incorrectly, viewed as a proxy for the concept of transmission capacity. The volume of TEC currently authorised for issue at any point in the network is limited and demand for access has resulted in proposals for TEC to be treated as a commodity in its own right with arrangements for TEC transfer and TEC trading.

In consequence attention has been paid to the concept of whether generators can “reserve” transmission capacity without making use of it. Examples quoted are mothballed generators or prospective (but as yet unbuilt) generators. In future, the right of a generator to access the transmission network should not depend on the volume of similar rights granted to other industry participants.

The Transmission Access Review is about change from the status quo and should be concerned with maximising the volume of “access rights” that may be issued which will be different from the amounts issued at present.

As noted in our response to Q3 (above) RES believes that, in future, there will be greater volumes of installed capacity with many generators operating at low to medium load factors. TEC can no longer be justified as a proxy for transmission capacity and the changing situation means that more access rights can be issued for a given transmission capacity.

**Chapter 3 Question 5: Are the transmission access models set out in this document broadly appropriate in considering how to meet the Government’s medium and long term aspirations? Are there other models that should be considered?**

RES agrees that the three models set out are the main options. We provide comments on each below but, in summary, RES recommends introduction of a Connect and Manage policy.

**Connect and Manage Model**

RES considers the connect and manage model as the best solution to the issues in removing current constraints on connection and providing the correct signal going forward to drive future grid investment. This model lets prospective generators who want to connect to do so and then manages the consequences: such management could include grid expansion; novel operating arrangements; or constraint payments.

A consequence of this is a change to the application of the GB Security and Quality of Supply Standard (GBSQSS). The planning aspects of the GBSQSS standards that are arrived at by a deterministic process are too restrictive, and a significant relaxation is warranted. In contrast, the operational aspects of the GBSQSS attain a greater significance in order to protect the network in those operational periods where demand for transmission of MWh exceeds the capacity of the network to safely deliver this.

NGET as system operator has the responsibility to manage energy flows With more generators connected to the network and competing to participate in the energy market NGET will need increased freedom to take appropriate measures to undertake this management at the lowest overall cost. RES considers NGET to be in the best position to manage risks and costs.

Amongst the freedoms that must be given to NGET is the ability to balance the respective costs of operational management measures and capital investment. NGET is currently exposed to separate price controls: one for asset ownership and capital expenditure; and one for operational expenditure. There is a need for a mechanism to allow appropriate tradeoffs between these expenditures such that the *overall* incentive on NGET is aligned with the needs of network users and customers to for NGET to meet their obligations at the lowest overall cost.

### **The Incremental Change model**

RES is convinced that to do nothing is not an option and that fundamental change is required in the short to medium term. The Incremental Change model will not deliver the required changes at the rate required.

Should it be decided that fundamental change to transmission access arrangements are not appropriate then it will always be appropriate to constantly review the existing arrangements to seek incremental improvements. The changes currently being implemented via this process are useful and should not be stopped whilst the Transmission Access Review progresses.

### **Auctioning**

RES does not support proposals for auctioning transmission capacity.

RES recognises that auctions are frequently seen as a solution to the allocation of an apparently scarce resource. There are a number of reasons why this does not apply to the provision of transmission access.

- Successful auctions rely on a sustained shortage of supply over demand. When demand exceeds supply the auction price collapses to zero. Auction of transmission access therefore assumes an enduring shortage of transmission capacity when the aim of this review should be to find ways of providing additional volumes of transmission access.
- The inherent shortage of supply over demand requires that some auction participants must be unsuccessful. For existing generators this is a reduction in their existing access rights. For prospective generators the risk that access may not be secured introduces a disproportionate risk which is a barrier to entry and therefore discriminatory.
- A successful auction requires the auctioned product to be clearly defined. As noted elsewhere in this response, operational measures may be substituted for volumes of transmission access and so the volume of rights to be auctioned cannot be adequately defined.
- Transmission access is not a commodity that is valuable in its own right. It is instead a requirement to enable participation in the electrical energy market. The turnover of this market is an order of magnitude higher than the costs of providing transmission access and distortions to the energy market are therefore more significant to consumers. Auctioning of transmission access distorts the energy market in two ways:
  - By limiting participation in the energy market it will reduce competition; and
  - The generators who are successful in transmission access auctions may not be those which are the lowest cost providers of energy.
- The prices that result from auctions for transmission access will reflect participants' willingness to pay rather than cost reflectively charging for the transmission network.
- The revenues raised at auction will bear no relationship to the revenue allowed to transmission licensees under the price controls. Mechanisms will be necessary to manage the resulting surpluses or shortfalls. These will add further complexity and undermine any economic signals that the auction process might have been intended to produce.
- The periodic frequency of auctions of transmission capacity has not yet been addressed. At one extreme, auctions could be aligned to the energy market and held every half hour. This would however introduce a degree of complexity and cost that is disproportionate to the costs of transmission. At the other

extreme, auctions for multi-year periods would introduce disproportionate risks for participating generators since auctions require a percentage of participants to be unsuccessful. RES does not believe that there is a middle option that can adequately balance these two deficiencies.

### **Other options - Overrun**

The Call for Evidence refers to this as a permutation of a capacity auction and also notes that it may be compatible with a connect and manage world. It is the view of RES that overrun could be applied with any access regime but that essentially overrun should be considered in relation to the arrangements for charging of transmission access. RES assumes that an overrun product would be charged on a different basis than the standard access product. It may therefore be attractive to some users to secure a combination of the two products. This decision however would largely depend on the details of the overrun charging arrangements and the extent to which the overrun charges were differentiated from the standard access product.

RES notes and agrees with the concerns of Ofgem/BERR that the introduction of overrun could have adverse consequences for the wider operation, and costs of managing, the transmission system.

RES does not believe that the existence of an overrun product would promote earlier connection of new generation nor have an impact on meeting government targets for renewable generation.

Since the introduction of overrun is primarily a transmission charging issue and does not affect the choice of reformed transmission access requirements, RES suggests that a decision on the appropriateness (or otherwise) of introducing an overrun product be outside the terms of reference for the Transmission Access Review and that the topic is reconsidered after revised access arrangements are implemented.

### **Chapter 3 Question 6: Are there any issues arising from the growth on offshore generation that need to be taken into account in considering access reform for the onshore transmission network?**

There is a substantial volume of offshore generation under development. This has raised issues for the development and regulation of offshore transmission assets that are outside the scope of the Transmission Access Review. However Ofgem/BERR have consistently proposed that offshore generators should, in principle, be treated in the same manner as onshore generators. The access arrangements deployed on conclusion of this review should therefore be suitable for application to both onshore and offshore transmission networks.

In addition, by its very nature, the growth of offshore generation results in energy flows at the extreme of the existing onshore network and arrangements for transmission access must be able to accommodate this.

### **Chapter 4 Question 1: What approaches to improving the delivery of infrastructure should we consider?**

There is an irreconcilable discrepancy between the time it takes to develop and construct new generation assets and the (longer) time it takes to design and construct major transmission reinforcements. It is therefore clear that it is prudent to undertake an amount of network reinforcement in advance of individual applications for connection where there are reasonable grounds to believe that there will be future demand for the network.

Ofgem needs to be 'braver' when allowing funding for expansion of the transmission system. Similarly Ofgem and NG must be more pro-active in facilitating expansion studies. The TIRG (Transmission Investment for renewable generation) initiative in Scotland demonstrated that this can be achieved. However it is now clear that this initiative was not brave enough. The inability to repeat the exercise for development of the transmission network into mid-Wales suggests that the current regulatory regime remains overly cautious.

### **Chapter 4 Question 2: Which operational measures are likely to improve connection prospects?**

RES very strongly favours a **connect and manage** approach.

RES believes that this question is best phrased in reverse as it is the improved connection rates that this review is seeking to achieve that will drive the development of operational measures. RES further believes that NGET as transmission system operator is best placed to develop appropriate operational measures. Experience has demonstrated that once exposed to an incentive scheme, NGET is adept at developing the tools and techniques necessary to implement new arrangements at the lowest possible cost.

**Chapter 5 Question 1: What changes to the constraint mechanism may be needed to create incentives for timely connection and disconnection from the transmission network and to sharpen investment signals?**

Transmission access arrangement should allow maximum access to the energy markets. Any transmission access system that introduces barriers to accessing the related energy market will potentially distort and/or restrict access to the more important energy market and is therefore highly undesirable.

Where there are to be constraint costs, these should be reflective of the costs borne by the constrained participants.

These costs should be recovered from all users of the transmission network. Attempts to target recovery of constraint costs from “those who cause them” are subjective and discriminatory. In a highly interconnected and multi-user network such as the GB transmission system there is no “correct” way to target cost recovery.

RES believes that constraint costs should not be given undue prominence in the Transmission Access Review. Constraint costs are only one (albeit important) component of the overall costs faced by electricity consumers. It is likely that constraint costs will rise with the introduction of alternative access arrangements. This point is frequently made of RES’s preferred connect and manage approach. However the level of constraints and their allocation should be reviewed in the context of the costs of the energy market and environmental costs

RES is convinced that transmission access reform is necessary to facilitate the earlier connection of new generation and to meet government targets for renewable generation. The expansion of competition in the energy market can also be expected to hold down energy prices.

## Conclusions

RES is, and will continue to be, supportive of the Transmission Access Review

We support introduction of the Connect and Manage model. We are convinced that this will:

- facilitate connection of new generation (including renewables);
- facilitate government targets for renewable electricity;
- provide clear signals for future network development;
- achieve the above at the lowest overall costs; and
- provide a sound framework for the future.

We would be delighted to discuss any of the details of this response in more detail. Please contact Richard Ford, UK Grid Connections Manager in the first instance. Richard can be contacted on 01923 299374 or at [richard.ford@res-ltd.com](mailto:richard.ford@res-ltd.com).

Yours sincerely,

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