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Consultation team – SG&G
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Attn Mr Anthony Mungall
Dear Anthony,

Fairwind Orkney Ltd – response to consultation document Electricity Transmission Charging: Assessment of options for Change

Thank you for the opportunity to respond to this consultation, which is an important part of the review – Project TransmiT.

We have attempted to summarise those parts of the process, taking into account – the original terms of reference, the Redpoint modelling, the reports of the SCR work group and the Ofgem consultation document. This is, of course, made from the particular standpoint of Island generation, though I hope the points made will cover the whole balance of the options as far as we are able.

We have appended our contribution.

It suffices to say in this covering letter that we consider the Ofgem 'steer' toward improved ICRP to be a significant step in the right direction, in that it reduces, what was a growing distortion in the charging of transmission for renewable technologies on mainland UK. However, the proposals and modelling that is behind them have – on the one hand – failed to address the problems of over-high charges in the Scottish Islands both in actual and relative terms and - on the other - potentially lost an opportunity to bring on more offshore wind and marine renewables earlier into the UK energy mix by disregarding the socialised option.

Yours sincerely,

Dennis Gowland
Director – Fairwind Orkney Ltd

Fairwind Orkney Ltd – response to consultation document Electricity Transmission Charging: Assessment of options for Change

The proposed options – as described in the consultation document
Chapter 4
Question 1
Answer: Not fully enough

Question 2 – Additional impacts – or those only partially addressed by the process

Socialised model

Ofgem has signalled its intent to disregard this option.
In our view the terms of reference for the modelling of this option were deficient in taking into account only overall transmission costs and potential constraint payments. To give a truer picture of the impact of bringing on renewables, earlier and in larger capacity, it would have been useful to model this against the background of volatile (and mostly of upward pressure) costs of hydro-carbons. Although it m missed in the extensive documentation covering this process to date, we were struck by an assumption used (though not modelled) that gas price would fall 15% in real terms in the period to 2020. This seems strange given that although the West has been in recession or very low growth since 2008, when lower industrial output, thus ay have been lower demand, may have been expected to lead to a decrease the cost in domestic electricity bills has risen around by around 40%.

The pessimistic conclusions from the modellers (Redpoint) that the socialised model would lead to an increase of £11 on annual domestic electricity bills by 2020, could have been set against the real rises since 2008 of on average around £300 per annum due to fuel volatility (as cited by the suppliers). It would have been very useful to see a model of increased amounts of non-fuel volatile generation and the impact it may make on energy prices going forward. Using the modelled estimate, by Ofgem, that 36% instead of 30% of generation would be produced from renewable by 2020 –if charges were fully socialised – what would be the impact of 6% less fuel price volatile generation on the price to consumers? Would it negate the £11 rise projected?

Improved ICRP

The reduction in disparity between geographical charges (locational – transport model) in the UK mainland is well made in this option. It seems perfectly logical to assign charges based on likely volume (usage) of assets – by re-assigning load factors. It is also reasonable to weight those factors to reflect geographically where low load factor generation may best be situated. It would reduce the incentive to situate onshore wind in relatively low wind resource areas to escape from high TNUoS (or even benefit from negative TNUoS), whilst continuing to encourage high load factor generation near to demand.
It is also, in our view, reasonable to set the peak charge factor to zero for intermittent generation.

The Redpoint model shows little impact on consumers for this model – maybe because, instead, this reduces the disparity between the winners and losers in the generation community by avoiding higher than justified collection of charge in Scotland.

Impact on Scottish Islands

Unfortunately the proposals under 'Improved ICRP' have left Scottish Islands little better off than under the status quo – and, potentially, even worse off. Relative costs for generators, for instance, locating each side of the Pentland Firth will widen considerably.

Under present arrangements (and using an average figure for Local charge in Orkney based on a number of quotes since 2008)

N of Scotland £22.7/kW

Orkney £67/kW (including N of Scotland charge as wider)

Under proposed ICRP (using Redpoint 'best case' analysis for Orkney)

N of Scotland £10.00/kW

Orkney £62/kW (including N of Scotland as wider)

Whilst in the example for Orkney the overall charge remains similar – though with uncertainties, still surrounding the raw cost of AC cable – the differential between Orkney and its near neighbour rises from (Orkney more expensive) 2.95 times to 6.2 times.
Given that the increased production (capacity) factor in the Islands, for onshore wind, versus North of Scotland may be around 5%, on average, the increased TNUoS differential would easily swallow up this advantage with consequent impact on investment decisions going forward.

Local charge – using security factors 1 or 1.8

It is our view that the application of this factor on Island circuits should never be more than 1.0. In our experience - we were quoted £114/kW in 2006 by NGET and it took months of enquiry and 2 meetings with the charging team to unravel the fact that the TO supplying the connection had quoted a raw cable cost for a double circuit. The MW/km price had been then multiplied by the generic 1.8 security factor - double counting. The quote was subsequently reduced to £61 including the North of Scotland zonal element.

It is of serious concern to us that the consultation document states that, for Orkney, the charge – if a wider zone was triggered – would be £94/kW. This begins to look like the erroneous charge quoted to our, then, investors in 2006!
The economic and efficient solution as far as TO and NGET estimates in the past 4 years has been to use single circuits to the Islands (although a single circuit may consist of more than one cable, given the thermal capacity of each cable). As the sub-

sea cables represent greater than 90% of the MW/km we cannot see any justification for levying a security factor of 1.8 on the whole. It would not be cost reflective and lead to an even larger element of over-recovery which would be passed – as a cross subsidy – to the rest of the generator community via the residual element.

Flaws in the assumptions used in the model or models behind the consultation document

- Islands can be counted as offshore generation
  Treating Islands as 'Offshore' may be discriminatory for the following reasons:
  Islands have real demand and thousands of customers
  They are served by terrestrial TOs and not OFTOs
  Connections are to more than 1 generator and will, very likely, be to more than 1 generator type

- Load factor should be 100% - (and a further assumption that there is no sharing)

  Counting installed TEC as the capacity of the cable (or even adding 'headroom') does not really reflect the actual use of the cable when intermittent generation is connected as peak flows are seldom likely to occur. If a mix of generator types is also factored in such as wave/tidal/algal biomass/local storage then the load factor of 100% per generator begins to look unjustified.

Suggestion

We suggest that, to bring Island connections in line with the main assumption used in Improved ICRP, a load factor of no more than 60% is used for intermittent generation. This could be accommodated by using a higher cable capacity rating as the denominator in the equation for cable cost MWKm/yr (than the thermal rating of the cable). Alternatively the factor could be used later in the set of equations.

HVDC

We are of the view that converter stations should not be part of generator's local circuits.

Bootstraps which parallel terrestrial AC circuits should be counted as benefitting the whole of the Generator and Supplier communities.

Dennis Gowland

14.02.12