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Dear Mr Hull

Firstly OREF would like to thank Ofgem for taking the time to consider options for island connections. We understand that there are many complexities associated with this issue and were very pleased to be able to discuss some of these issues with Ofgem representatives in Orkney in 2006. Our comments on the proposed options are founded on a belief that the northern and western isles of Scotland have a tremendous potential to deliver carbon free energy to the UK in strategically important quantities and at increasingly competitive prices.

Orkney already plays a critical strategic role in UK energy supply as the home of the Flotta Oil Terminal and as the main ship to ship oil (and gas) transfer port in the UK. It is clear therefore that Orkney's location has not been any kind of impediment to it playing an efficient and cost effective role for UK energy supply over the last 30 years. Being blessed with some of the best renewable energy resources in the world Orkney is very keen to make a similarly important contribution to energy supply for the coming decades.

Over the last 8 years OREF and its members have been involved in delivering a number of key energy achievements:

- Establishment of the European Marine Energy Centre (EMEC);
  - Organising the 2002 & 2003 Renewable Realities events;
  - Establishment of the Orkney Renewable Power Zone;
  - Over 20 MW of onshore wind and operating wave and tidal generation devices;
  - Developing over 50 community oriented renewables projects including:
    - Developing the 100% locally owned & financed Burray wind turbine;
    - A series of micro wind turbines
    - Biodiesel production from waste cooking oil;
    - District heating from wood fired biomass;
    - Solar powered lighting for bus stops and lighthouses;
    - Biogas production from cattle slurry;
    - Electric vehicle powered by wind.
  - Completing a detailed renewables resource assessment for Orkney;
  - Lobbying for a marine renewables SEA to be commissioned;
  - Lobbying for the £13 million marine technology fund;
  - Triggering preliminary planning work for a new 200 MW grid connection;
  - Preliminary design and evaluation of around 180 MW of future renewables projects;
  - Promoting a variety of new grid management initiatives at distribution and transmission level;
  - Securing the commitment of 8 marine technology developers to Orkney as a preferred location;
  - Developing ideas that could help exploit the 5 GW of constrained renewables potential known to exist around these islands.
- and we greatly appreciate the guidance and help and support that Ofgem has been able to offer related to a number of these successes.

The importance of these successes is that they have proven that with co-ordinated joined up thinking challenges can be faced and difficulties can be overcome to the benefit of both Orkney and wider UK society.

Establishing suitable connections from the islands in the short, medium and longer term has always been a key area of focus for OREF and has become even more important as other parts of the renewable energy supply “jigsaw” have been put in place. OREF therefore have the following observations to make upon the paper published by Ofgem.

### **Connecting the islands of Scotland**

We are very pleased that the unique resource levels and the strategic importance of these resources are recognised in the first 2 paragraphs of the open letter. We are also in agreement that an appropriate regulatory framework will be a key facilitating factor in bringing these resources on stream. We note that the drive for “fit for purpose” and “lowest possible cost” connections may lead to wider strategic development issues and longer term cost trends being ignored or downgraded in any processes. We strongly believe that the establishment of energy transmission infrastructure is a key strategic investment for the UK and that therefore a strong element of strategic thinking also needs to be considered alongside shorter term cost factors.

We also would comment that as well as ensuring that “developers needs are met” and that “customers do not pay more than necessary” any framework should seek to also achieve the wider UK energy strategy goals, we would strongly argue that this needs the delivery of Scottish Island renewables potential.

### **Background**

We note the reference to the position that regulation replaces competition in the energy supply market. We would suggest that within the competitive business market that are a variety of strategies that are successful (for example the different stances of Exxon and BP on climate change initiatives, or Lidl and Sainburys in the supermarket trade). A regulatory framework therefore has a choice about the quality and value that it provides to the customers it serves, it needs to be responsive to changing markets, opinion and circumstances. In today’s energy world with the paramount need to reduce energy consumption and reduce carbon emissions from energy production we would argue that a medium to long term supply of reasonably priced renewable energy provides best value to customers than short term supply of cheaper but carbon based energy.

A regulated market can therefore be less flexible and responsive than a real market because all supply to the market is based upon the same set of values and strategies. Competitors operating in a market may deliver quite different choices to the customer allowing the market to more quickly respond to changing circumstances. We welcome therefore the added flexibility that this letter signals with regard to the energy market and its links to island energy resources. We hope that it signals a move away from the priority of an endless supply of cheap energy to a more sustainable energy supply strategy. We believe that saving energy benefits the customer far more than cheaper energy.

### **Delays in achieving connection**

The bottleneck in grid transmission capacity from areas of high renewables resource has been an issue that OREF has consistently highlighted and we welcome the moves that have been taken so far. We believe however that the sums needed to upgrade the grid are only a small proportion of the costs that will be spent on upgrading and replacing power production plant and in securing ongoing fuel supplies. We would suggest that the true life cycle costs of distributed renewable power supply – even with major grid upgrades – will be far cheaper than the equivalent maintenance and replacement of existing centralised generation systems. Achieving best cost for the consumer will be better served by investing in a new grid system designed for tomorrow rather than investing in the same type of power plants that have got us to the position we are in now.

When considering investment and other priorities we would suggest that the UK strategic energy interests would be best served by limiting access of old carbon emitting technologies and provide preferential access to clean generation, rather than limiting access of new clean technologies to the grid and prioritising old generation plant as at present.

### **Consideration of island connections to date**

We are grateful for engagement with island groups in coming up with this strategy and that the case for the island connections has been investigated on a number of occasions. Consistently through these studies, the Orkney grid connection has been shown to be the most cost effective, even though there are some outstanding issues over the assumptions used in the various calculations.

We believe that the studies so far have taken a somewhat minimalist approach to utilisation of any grid connections, essentially estimating the highest possible cost base that could exist. We believe that an alternative methodology of seeing how much utilisation could be made out of different connection scenarios would provide a very different set of cost scenarios. The capacity factors available in island locations, the mix of technologies and the potentials for short term storage could all be important factors.

### **Developing a regulatory regime**

In considering future development of the regulatory framework we are delighted to see that sustainable development and environment are considered along side issues such as cost control. Such a broader perspective will bring a number of new considerations into major infrastructure decision making. For example it is important to recognise the traditional energy system costs will continue to rise, whilst renewable energy production costs will continue to fall. Also as outlined previously the regulated market is currently based upon the premise of selling more and more energy cheap energy – not selling less higher value energy – we would suggest that the latter approach is more based on the principles of sustainability.

The final paragraph of this section with recognition of other interests and benefits contains believe VERY IMPORTANT principles

### **Options**

With regard to the specific options outlined in the letter we would make the following observations:

#### **The status quo**

- THUoS charges for island connections are far too high at present
- There needs to be a more open analysis of where these costs are coming from and discussion of how they can be more appropriately calculated or key cost factors reduced (as outlined by some of the other options).
- There needs to be more explicit commitments from the UK government on how/when and at what level the capping regime may be applied. Any investors need to know what the arrangements are in advance.

#### **Merchant approaches**

- This option apparently has a number of significant benefits.
- The linkage between construction and operation of the assets helps to ensure that best value solutions will be found
- There is a need to safeguard interests of other users as is noted in proposals.
- We believe that there is a risk of a lack of co-ordination under this scheme, but that this could be remedied relatively easily.

#### **Tendering**

- Given the history of major construction works in the UK we have no confidence that simple tendering of infrastructure construction jobs is a reliable way of delivering quality or overall lower prices. It is very likely that grid connections will need to be flexible and adaptable to changing circumstances and contractors will use variations to drive up costs. If they have a stake in ongoing operation as in the merchant option then it will we believe be more productive.
- If this approach were to be adopted the notification of other parties, and arrangements for best meeting their needs will be very important. There also needs to be someone to take responsibility for strategic objectives (e.g. Scottish Exec/ HIE).
- The proposition that the TO has no obligation to bid is not a good idea – this may lead to hierarchy of benefits where most commercially attractive projects get lowest prices through

strong competition and less attractive projects higher prices whereas quality of energy delivered would be a better measure.

### **Ofgems initial view**

In this summation the balance between developers' needs and consumer needs is highlighted. Yet despite some broader sustainability issues and long term cost factors being recognised in the preceding text of the letter, consumer needs are once more narrowly interpreted in terms of short term costs. Other material considerations are government energy and CO2 targets and the government policy of developing a UK marine renewables industry. It is understood that it is not viable to have unused assets, however, we firmly believe that with robust commitment to making the connections along with a reasonable use of system price, users for the capacity would quickly establish themselves. We can provide further detail on this if required. We also believe that there are a wide range of relatively low cost planning and design activities that could be completed now to ensure that time is not lost waiting for major investment decisions. The sums involved would, for example, pale into insignificance compared to the public investment in trying to find a solution to the disposal of nuclear wastes from power generation.

With regards to the best mechanism for facilitating new island connections we would strongly suggest that a reliance on competition alone is misplaced. Many major grid connections around the world have been built by national governments as part of their national strategic infrastructure planning. All models of infrastructure provision should therefore be considered, with private sector investment preferred where there is both willingness and sufficient strategic provision, but with rapid public investment where other options don't exist.

Allowing private investment as an option brings far more than competitive pricing, it also brings with it strategic thinking, long term planning, real customer focus etc. In fact the resilience of private companies interested in the island connections is somewhat remarkable given the incredibly hostile or ambivalent regulatory/pricing regime that exists at present.

It is clear that there needs to be a back stop position so that if the private sector does not step forward, the strategic importance and advantages of island connections are recognised and appropriate actions are implemented.

Some of the specific advantages that the island connections would bring are:

- Access to probably 10 GW of clean carbon free renewable energy
- Some of the most productive renewable energy in the world – leading to high efficiency generation
- Spatial separation of renewable energy supplies creating greater base load provision in overall supply due to different weather patterns, tidal cycles etc
- Availability of electrical power supplies near to the oil and gas industry helping reduce CO2 emissions and extend the lifetime of oil and gas fields
- Opportunities to link into a European super-grid by creating a circular link through Norway, therefore avoiding significant grid spurs

Whilst there may well be some fiscal similarities between island connections and offshore wind farms, the island connections offer far more to the UK in terms of: additional productivity; the mix of resources available; the scale of production; the potential industrial spin-off jobs; sustainable economic development in some of the most fragile communities in the UK

### **OREFs Initial view**

It is our view that there may not be a "one fits all" solution; each of the various island connections may require a different best value solution. Given the circumstances that face Orkney we believe that the preferred hierarchy of the options available is as follows:

- 1 Merchant solution
- 2 Continue as is
- 3 Tender - as last resort

We are however aware that under the existing arrangements work has already started on the provisional planning for a new connection to Orkney. Any developments to the regulatory framework should therefore be undertaken in a manner that only enhances or improves upon the current situation rather than delaying or destabilising it.

A further point that we would wish to make is the criticality of getting a rapid resolution to these issues. There are a number of aspects associated with island connections that are time dependent. The first relates to the UK wide investment in energy infrastructure that is going to take place over the next decade. Each of the island groups can be considered as a major power station. Investment in island connections brings on GW of clean carbon free power generation, with marginal transmission losses, compared to new gas, clean coal or nuclear which each have their own problems.

The second timing issue relates to the aspiration that the UK has promoted of being a world leader in marine renewables. Commercial investment decisions are already taking opportunities in this sector away from the UK purely because there is no available grid capacity and the charging mechanisms are so punitive. A rapid resolution on this issue is required to send a signal to technology developers and investors that the UK is serious about being a major player in the marine renewables sector.

### **Industry workshop**

In taking any or all of these options forward we would welcome the opportunity for ongoing input from OREF into the process. We would therefore be keen to attend the workshop that you are proposing. We would view our contribution at a community level as complementary to that from commercial developers and strategic custodians such as Orkney Islands Council, Highlands and Islands Enterprise and the Scottish Executive.