

OUTER HEBRIDES RENEWABLES GROUP

Response to OFGEM's Project TransmiT Consultation

INTRODUCTION

The Outer Hebrides Renewables Group (OHRG) is an amalgamation of Government, Grid and policy interests, research functions and Renewable Energy developers active in and around the Outer Hebrides. The objective of OHRG is to: coordinate Renewable Energy activity in and around the Western Isles to achieve economy of scale; to develop an integrated 'offer' to prospective developers in terms of Grid, fabrication, research and supply chain; and, to lobby collectively for improvements in Grid infrastructure and access.

This response is endorsed by the following Renewable Energy developer members of OHRG:

- AMEC / EDF (Stornoway Windfarm)
- SSE Renewables
- Beinn Mhor Power
- Voith Hydro Wavegen
- Pelamis
- Aquamarine
- Zero Carbon Marine
- North Scotland Industry Group
- University of the Highlands & Islands Greenspace Research
- The Stornoway Trust
- Galson Energy
- Point & Sandwick Power
- Horshader Community Development
- West Harris Renewables
- South Harris Renewables

OHRG meetings are also attended by Comhairle nan Eilean Siar, Highlands and Islands Enterprise, Scottish Government (Energy Unit), The Crown Estate, Marine Scotland, National Grid, Scottish and Southern Energy, Community Energy Scotland, Scottish Natural Heritage, Lews Castle College, OFGEM and DECC.

BACKGROUND

In general terms, OHRG feels that Transmission Network Use of System (TNUoS) charges for the Outer Hebrides are prohibitive and are impacting on the Business Plans of Renewable Energy developers to the extent that they are currently unable to commit to developments in and around the Outer Hebrides. The Renewable Energy Resource in and around the Outer Hebrides can be measured in Gigawatts and access to that resource is essential for the achievement of Scottish Government, UK Government and European Commission carbon reduction targets. In short, capture of this resource is clearly in the national interest. The lack of investor confidence, caused by prohibitive TNUoS charges, is now militating against the national interest in that the Transmission Operator's proposed Western Isles Radial Connector can not now proceed due to a reluctance on the part of developers to privately underwrite the £400m cost of this link because of prohibitive TNUoS charges. Without the Radial Connector, no Renewable Energy generation of scale can take place in and around the islands and the Scottish Government's flagship Saltire Prize Challenge, with West of Hebrides as a preferred deployment area, is prejudiced.

Scottish and Southern Energy's announcement of 10 November 2010 that it is withdrawing from the Radial Connector procurement process until sufficient private

underwriting is confirmed means that Project TransmiT may be 'too little, too late'. Re-engagement in procurement will take one year and construction will take a further three years, delaying installation of the Radial Connector to late 2015 at the earliest. A reduction in TNUoS, through Project TransmiT, in the Spring / Summer of 2011 will not accelerate this timescale.

With over 500MW of onshore wind consented, in planning or in development and up to 10GW anticipated from marine deployments over time, OHRG urges OFGEM to authorise strategic investment in the Western Isles Radial Connector as a national interest imperative. This can be done through enhancing the Transmission Operators Transmission Investment in Renewable Generation (TIRG) allocation.

OHRG welcomes OFGEM's recent 'connect and manage' derogation which allows a number of small, community generators to connect to the existing system. However, OHRG finds it bizarre that this derogation will operate by 'constraining off' other Renewable Energy developers in Skye and on the Scottish mainland to accommodate island generators. This shutting down of renewables generation demonstrates that the current system of Grid operation and access is dislocated from the national drive for a low carbon economy. While lower TNUoS charges in the Scottish islands will improve the situation, tinkering with transmission charges is only dealing with the symptoms rather than the cause of current Grid difficulties.

National Grid's licence must be revised to reduce the impact of a cost reflective approach to Grid investment on Renewable Energy development in remote areas of best resource. At present, National Grid's licence contains no sustainability obligation and OHRG finds this incongruous at a time when the nation is facing a Climate Change and Supply Security crisis.

PROJECT TransmiT CONSULTATION RESPONSE

CHARGING

Whether our objectives for Project TransmiT are appropriate;

The stated objective of facilitating a timely move to a low carbon energy sector while providing safe, secure, high quality network services at value for money to customers is an admirable aspiration but a massive challenge. The UK's transmission and distribution system was built around the concept of large scale, fossil fuel generating stations in the urban centre distributing electricity to outlying areas. Now that the nation must move to a low carbon economy, large scale fossil fuel generation is not appropriate and the system must adapt to *collect* large amounts of electricity generated from renewable sources in the North and West of Scotland where the wind blows most vigorously and wave energy is at its highest. This represents a fundamental shift from distribution to collection. The transformation required in the UK's electricity network to accommodate this new source of sustainable energy and reverse historic energy flows should not be underestimated. Government investment on an unprecedented scale is required right now to fit the current network for the post fossil fuels economy. Reviewing transmission charges in isolation will not solve the wider problem. Major strategic investment decisions are required now.

Whether the principles on which the current charges are derived remain fit for purpose given the new and emerging challenges that the energy sector faces. If not, evidence of why this is the case and suggestion of what alternative or additional principles should be adopted;

The current regime of TNUoS charging developed to service large fossil fuel generators located beside urban areas and it is in the interests of these generators that the status quo is maintained. Nobody questioned the ethics of a locational transmission charge while the transmission distances involved were minimal. However, OHRG feels it is unfair, discriminatory and unsustainable to apply direct locational charging to new, low carbon renewable energy generating plants in the North and West of the country while large fossil fuel generators around the urban centres continue to benefit from the happy accident of their own, unsustainable, location. The investment signal sent out by this locational charging regime is actively hampering the emergence of the critical new renewable energy industry. The extent to which the current network and charging regime is out of date is evidenced by this locational signal which tells developers to ignore the renewable resource and locate closer to the centre of demand. While this signal encourages generators to work within existing network capabilities and reduces the need for expensive new capacity, it will not support the nation's drive towards ambitious carbon reduction targets but will rather militate against it. It should be noted here that most renewable energy sources (wind, wave etc) can not respond to locational signals in the same way that fossil fuel sources can. Fossil fuel stations can locate anywhere in the country and can 'follow the subsidy'. Wind and wave installations, by contrast, must locate where the resource is and do not have the flexibility to 'follow the subsidy', necessarily having to locate in areas of highest TNUoS. This is another, rarely acknowledged, aspect of TNUoS discrimination.

There is an argument that says that renewable generation in the North West of Scotland represents only a small proportion of the UK's overall energy market and that overhaul of the entire UK charging regime, with the associated pain for existing fossil fuel generators, would not be appropriate to cater for such a marginal interest. However, DECC and OFGEM have to consider what signal this argument sends out regarding the nation's commitment to a low carbon economy and supply security. While there may be a case for leaving the bulk of the UK network 'well alone' and dealing with the extremes of the network by bespoke charging incentives, the ethical integrity of this approach is questionable. OHRG would rather see transmission costs socialized across the entire network to remove the current locational discrimination. Socialisation of costs is a proven approach in Germany, demonstrating that the approach can work.

Historic vested interests in the urban areas should now be set aside to ensure that the UK embraces a sustainable, low carbon future. Retention of the current discriminatory transmission charging system makes the UK look disingenuous in its low carbon claims.

Whether NGET's and NGG's approach is consistent with the principles currently in place, and whether their approach is applied consistently;

NGET's licence condition to make Grid upgrade cost reflective is the single largest obstacle to the development of a low carbon Britain. While this discriminatory licence condition remains in place, the UK network will continue as an outdated relic from the fossil fuel era, unable to grasp the massive opportunities now being presented by renewable energy in remote areas. NGET's approach is unfortunately rigorously consistent with the cost reflective principles currently in place. That consistency is not in question – it is the discriminatory nature of the principle itself that must be challenged. NGET's licence conditions must be amended to reduce the emphasis on cost reflectivity and to introduce a funded sustainability obligation.

Whether the current arrangements deliver value for money to energy consumers;

It is difficult to provide a meaningful answer to this question without access to detailed data on the cost of network transformation spread across all consumers. The relative satisfaction of end electricity users with current arrangements might imply value for money but should not be taken as justification for inequality behind these figures. The move to a low carbon economy and national security of electricity supply will not be painless and consumers must be prepared to bear their own share of this burden. To access vast amounts of renewable energy resource in the North West of Scotland will require billions of pounds of investment in the current archaic network. Things have now come to a head and this review of TNUoS is just one belated response to the growing energy crisis that is now facing the nation.

The UK consumer must also take notice of security of supply. Control of energy supplies by unstable or belligerent regimes will be the new warfare and the UK electricity consumer should be prepared to invest similar amounts in renewal of the electricity network as they invest, through their taxes, in conventional military hardware.

Whether the current arrangements facilitate appropriately the connection of low carbon generation including renewables and any other new generation, preferably with evidence of impacts of transmission charges on such generation (note that this, as well as all other parts of a response, can be provided on a confidential basis); and

OHRG is very clear that current transmission arrangements are hampering the connection of low carbon generation. Six developers, currently scoping in and around the Outer Hebrides, have stated that they will not invest in this area of best resource because of punitive TNUoS charges. Total TNUoS charges of £95.73 have been quoted to these developers with a locational zonal tariff element of £20.07 per kW/h. This compares to a locational zonal tariff element of **minus** £6.41 in Central London where there is no renewable resource. How can the UK Government say it is promoting a low carbon economy when absurd locational signals of this nature are being sent out to industry? To compound matters, NGET's definition of the Main Interconnected Transmission System (MITS), based rather arbitrarily on the number of substations on a line, excludes the Western Isles Radial Connector from MITS and refers to that Connector as 'local circuit', requiring its cost to be reclaimed through the 'local circuit' element of TNUoS. This 'local circuit' tariff is added to the locational zonal tariff of £20.07 and is largely responsible for producing a total TNUoS charge for the Outer Hebrides of £95.73. A London generator has a negative locational zonal tariff and no 'local circuit' element of TNUoS because connection is directly into MITS. How can DECC and Ofgem support this level of geographical discrimination, particularly when it militates directly against the move to a low carbon economy?

Some point to the fact that, in 2009/10, the locational zonal tariff element of TNUoS raised £85m of revenue for National Grid while the non locationally specific residual tariff raised £300m. In view of these figures, it has been argued that, with only 27% of transmission revenues paid by generators and 73% paid by end consumers, the impact of the locational zonal tariff on the investment decision of generators is minimal. However, this argument ignores the significant capital cost of a non Mains Interconnected Transmission System Radial Connector, like the Western Isles link, which has to be underwritten and then paid for by generators through an additional and prohibitive 'Local Circuit' tariff. For developers considering the Outer Hebrides, this 'Local Circuit' tariff is far more significant than the locational zonal tariff in stalling investment decisions.

DECC have been quoted as saying that punitive TNUoS charges in the North of Scotland and the Scottish Islands have not stopped developers developing. This is no longer the case, as stated above – six developers will not invest in the Outer Hebrides while TNUoS charges remain at their current level. No Business Plan can

tolerate these charges over the longer term. Previous assessments of project viability by DECC which informed this view were based on out of date capex figures and unrealistically high load factors for onshore wind. They also disregarded the massive marine resource now coming on line.

The prospects of the proposed 450MW (upgradeable to 900MW) Western Isles Radial Connector are directly tied to current TNUoS charges and the outcome of this review. On 10 November 2010, SSE announced that they were withdrawing from the cable procurement process due to the reluctance of private developers to underwrite the £400m cost on the basis of prohibitive TNUoS charges. This will delay Radial Link installation by at least two years to late 2015 at the earliest. Current TNUoS is therefore sterilising the best Renewable Energy resource in Europe. In addition, and as stated above, the Connector is not classed as part of the Main Interconnected Transmission System so its cost has to be reclaimed through a crippling 'local circuit' tariff within TNUoS. 50 miles away, across the Minch, a Scottish mainland generator can connect directly into MITS with a negligible 'local circuit' charge. In this way, NGET are treating the Scottish islands as offshore generators, connected by cable to MITS. If this is the established view, and NGET maintain that the cost of Radial Connections must be recovered through a 'local circuit' tariff within TNUoS, then OHRG is prepared to recommend a short term 'fix' for the TNUoS situation through the award of offshore Renewable Obligation Certificates to onshore wind projects in the Scottish islands. It must be made clear, however, that this is a short term 'fix' which could bolster Business Plans and encourage Outer Hebrides developers to underwrite the new Radial Connector. This is not an alternative to a far reaching and necessary overhaul of the inequitable TNUoS regime. This approach is not without its problems. Taken to its conclusion, it could result in North of Scotland generators indirectly subsidising unsustainable urban generators through high TNUoS charges using a Government subsidy which was designed to promote renewable generation in the first place. This is not a socially acceptable scenario for the longer term. Far better for the Western Isles link to be recognised as part of the UK's strategic energy network and directly resourced as such, just as the Beaulieu – Denny line was, without private underwriting.

OHRG strongly urges DECC and Ofgem to review the current TNUoS regime to remove its inherent geographical bias and discrimination. While socialization of costs across the entire network is the sensible and sustainable way to encourage new, low carbon generation, there may be a case for capping TNUoS by order of the Secretary of State for Energy and Climate Change in areas where TNUoS is blocking renewables investment. This is in line with the provisions of Section 185 of the Energy Act 2004 which empowers the Secretary of State for Energy & Climate Change to exercise powers to adjust transmission charges for renewable electricity generators in a specified area of Great Britain. According to the legislation, "the power can be exercised if renewable development in that area is likely to be deterred or hindered in a material respect by the level of transmission charges that would otherwise apply". Nowhere is this deterrent or hindrance more evident than in respect of prohibitive TNUoS charging in the Outer Hebrides. OHRG calls for a statutory Section 185 cap, regardless of any reduction in TNUoS charges as market conditions could quickly drive TNUoS charges back up to prohibitive levels, eroding the benefits of any temporary reduction.

Whether there are particular issues associated with transmission charging that should be prioritised.

While comprehensive review of the current transmission charging regime is long overdue, certain actions should be prioritized to ensure that large amounts of renewable energy in the North West of the UK is accessed in the national interest. The recommendations arising out of this review will not be published until the summer of 2011 but the current impasse has already cost the Outer Hebrides its 450MW (900MW) Radial Connector until 2015 at the earliest. Unless TNUoS

charges for the islands are capped immediately or additional short term Renewable Obligation Certificates are made immediately available for island generation, there is a clear danger that renewable energy developers will deploy elsewhere in the globe, depriving the UK of access to its area of best resource. This means that the Radial Connector will not be underwritten and interconnection from the islands will fail. If the current window of opportunity for interconnection from the islands is missed, it may never be possible to access the same level of renewable energy in the future.

In short, OHRG recommends that the following actions are taken, with the first three time-critical actions put in place before the recommendations of this review are published:

1. OFGEM should identify the Western Isles Radial Connector as a national interest, strategic investment and should allocate enhanced Transmission Investment for Renewable Generation (TIRG) resources to the Transmission Operator to effect this investment without waiting for private underwriting. This necessary element of national infrastructure will be centrally paid for in any case with costs reclaimed through the 'local circuit' tariff part of TNUoS so, given the scale of the resource, why can OFGEM not bear the initial risk and invest 'up front' in the connection?
2. the Secretary of State for Energy and Climate Change should exercise his powers under Section 185 of the Energy Act 2004 to adjust transmission charges for renewable electricity generators in the Scottish islands in view of the fact that current TNUoS charges are a demonstrable deterrent to renewable development in these areas;
3. DECC and OFGEM should support the Scottish Government to introduce additional Renewable Obligation Certificates (ROC) for generators in the Scottish islands. This could be an interim measure to support the business cases for island generators in advance of reviewed TNUoS charges. These ROC's could give confidence to island generators and encourage them to underwrite the Western Isles Radial Connector, if required; and,
4. As a key outcome of this review, DECC and OFGEM should radically review the current transmission charging regime to remove its inherent geographical bias and discrimination. This could be done by partially or fully socializing network costs across the entire network in common with the approach already used by other public infrastructure providers such as transport and water. Without such a wholesale review, OHRG will not be confident that Government and regulators are committed regarding a low energy future for the UK.

CONNECTION ARRANGEMENTS

Whether our objectives for Project TransmiT are appropriate;

Again, Project TransmiT's over-arching objective of facilitating a timely move to a low carbon energy sector while providing safe, secure, high quality network services at value for money to customers is laudable but hugely challenging.

Whether there are practical problems hampering connection to the network. If so, we would welcome evidence of the problems and suggestions for resolution;

The Western Isles Radial Connector is classed by Government as 'enabling works' and connection is not possible until these enabling works are complete. The challenges of providing this link while TNUoS charges remain at their current level, preventing developers underwriting the connection, are well rehearsed above. OHRG has already recommended the capping of TNUoS charges and additional island ROC's as interim measures to release the deadlock. A further option regarding connection might be underwriting by the Government of this Radial Connector given that its provision is in the national interest. OHRG therefore urges DECC and OFGEM to allow National Grid and SHETL to make a strategic 'no

regrets' investment in this important transmission upgrade, removing the need for developers to provide private underwriting. This modest financial provision, made in the national interest, will ensure that carbon targets are met and will release circa £1.2bn of investment in the area by private developers.

Whether the current arrangements ensure fair treatment of system users; and

As outlined above, the current arrangements are manifestly unfair to developers at the extremities of the electricity network. Given that these developers have the capability to release vast proportions of renewable energy into the system and propel the nation towards its low carbon and supply security targets, this inequity should be removed through this review. OHRG is not asking for preferential treatment for low carbon generators in the area of Europe's best resource - although this approach could be justified in the current climate. It merely seeks a level playing field throughout the UK and a recognition of the scale of the carbon challenge facing the nation.

Whether there are particular issues associated with connection arrangements that should be prioritised.

The same issues affect charging as affect transmission in the Western Isles as prohibitive costs are the key deterrent in delivering connection solutions. OHRG has nothing to add specifically on connection other than to urge DECC and Ofgem to seize the moment and develop proposals for a radical overhaul of the UK electricity network, changing it from an outdated central generation and peripheral distribution network to a peripheral generation and collection network for central consumption.