

## **Project TransmiT – OFGEM’S REVIEW OF TRANSMISSION CHARGING**

### **A consultation response by Comhairle nan Eilean Siar**

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#### **INTRODUCTION**

Comhairle nan Eilean Siar, the Local Authority for the Outer Hebrides, is firmly of the view that the current electricity transmission charging regime is deterring investment in renewable energy generation in the UK’s areas of best resource and is, by extension, prejudicing the UK’s move towards a low carbon economy and energy independence. Comhairle nan Eilean Siar is heavily involved in the promotion of renewable energy schemes in the North West of Scotland, onshore and offshore, and deals daily with developers who are unable to develop major renewable projects because of the current Transmission Network Use of System (TNUoS) charging regime. It is the firm view of Comhairle nan Eilean Siar that the TNUoS regime must be radically overhauled if Scottish, UK and European carbon reduction targets are to be met.

A Supplementary Planning Guidance exercise recently indicated that the Outer Hebrides could host 1GW of onshore wind generation without prejudice to environmental designations while the offshore generating potential around these islands is limitless and can be measured in Gigawatts. Despite this potential for generating capacity, there is only 3.9MW operational in the islands. While this is primarily due to a lack of Grid connectivity, prohibitive TNUoS charges of £95.73 per kW/h have recently emerged as an obstacle to private underwriting of necessary Grid upgrades. While developers refuse to provide private undertaking for the new Western Isles 450MW (upgradeable to 900MW) Radial Interconnector on the basis of prohibitive TNUoS charges, there will be no interconnection and no significant renewable energy generation in Europe’s area of best resource around these islands.

Comhairle nan Eilean Siar is in discussion with six renewable energy developers currently scoping in and around the Outer Hebrides and all six developers have said that they will not invest in planned renewable schemes because of the current level of TNUoS charges. For the first time, this represents direct evidence that prohibitive TNUoS charging is stalling Grid upgrade and preventing the capture of a significant level of renewable energy from Europe’s area of best resource.

#### **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. Private developers will play their part by underwriting certain network upgrades but cannot be expected to burden the entire cost resulting from decades of central underinvestment in the UK network.

**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, the Comhairle feels it is unfair, discriminatory and unsustainable to apply 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 are 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 comfortable 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 troublesome renewable energy margins by bespoke charging incentives, the ethical integrity of this approach is questionable. The Comhairle 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.

Car users in our major cities make far more demands on the UK's transport network and necessitate far more investment in complex traffic systems than car users in the Outer Hebrides but yet people in the Outer Hebrides pay the same for vehicle excise licence. In other words, transport costs to the user are socialized and there are few complaints because car users in the major cities benefit, effectively receiving a subsidy from the rest of the country. Why can the same approach not be adopted in terms of the nation's electricity networks? 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 and unwilling 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 allow for socialized transmission charging or the nation will never get to security of supply and a low carbon economy will continue to evade us.

**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. This is because of a lack of foresight and an unwillingness to invest over many years by network operators. 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.

Control of energy supplies by unstable or belligerent regimes will be the new warfare and UK electricity consumers 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**

Comhairle nan Eilean Siar 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 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.

NGET 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.

The situation surrounding the proposed Western Isles 450MW (900MW) Radial Connector is giving the Comhairle most concern and the prospects of this link are directly tied to current TNUoS charges and the outcome of this review. Network operators, Scottish Hydro Electric Transmission Limited, require private developer(s) to underwrite 150MW of this connection, equating to roughly £80m. No Outer Hebrides developer is willing to provide this undertaking while current TNUoS charges render their Business Plan(s) untenable. 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 the Comhairle 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. This is not a socially acceptable scenario for the longer term.

The Comhairle 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 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.

### **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 regarding the Western Isles Radial Connector must be broken within the next two months. 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, the Comhairle recommends that the following actions are taken, with the first two time-critical actions put in place before the recommendations of this review are published:

1. 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;
2. 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; and,

3. 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 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, the Comhairle 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 current TNUoS charges prevent developers underwriting the connection are well rehearsed above. The Comhairle has already recommended the capping of TNUoS charges and additional island ROC's as interim methods 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. The Comhairle 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 £80m of 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 in remote areas. 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. The Comhairle 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. The Comhairle 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.