

Dear Anthony

**PROJECT TRANSMIT REF 188/11 – ELECTRICITY CHARGING: ASSESSMENT OF OPTIONS FOR CHANGE – RESPONSE BY HIGHLANDS AND ISLANDS ENTERPRISE**

Highlands and Islands Enterprise (HIE) is the Scottish Government's agency responsible for economic and community development across the northern half of Scotland and the Islands.

HIE along with its local partners: the democratically elected local authorities covering the North of Scotland and the Islands: Shetland Islands Council, Orkney Islands Council, Comhairle nan Eilean Siar, Highland Council and Argyll & Bute Council have, for a number of years, been active in the regulatory arena because of the significant bearing regulation has on the economics and deliverability of projects in the Highlands and Islands of Scotland.

Home to some of Europe's richest renewable resources, the Highlands and Islands are well placed to contribute UK carbon reduction targets and the regulatory objective of security of supply by facilitating the deployment of a geographically dispersed, range of technologies; if key regulatory barriers can be effectively addressed to facilitate deployment of renewable technologies.

In our view, Project TransmiT offers the best chance of delivering a set of regulatory arrangements to enable the UK to work towards its low carbon generation targets with a significant element of renewable electricity. We believe it is the most appropriate vehicle for delivering these arrangements and welcome the opportunity to respond to this most recent consultation document.

HIE would like to compliment Ofgem on the openness of the current consultation and in particular on the transparency of the limited analysis done to date. This has been very helpful and has allowed us to probe the charging options and make some detailed suggestions for improvements. These are summarised elsewhere in this response and we would welcome the opportunity for ongoing dialogue on this.

**SOCIALISED CHARGING**

We are disappointed that Ofgem is proposing to rule out the fully socialised option, and the variant which socialises just the wider element of TNUoS. We feel that the cost difference between socialised and the locational charging methodologies could be narrowed with some different modelling assumptions e.g. affording a credit to the increased comfort that socialised gives in meeting renewable energy targets; limiting the ability for investments to switch from one location to another, which in the near-term at least, may be more realistic.

While we acknowledge that the fully socialised model in particular may remain, in the long term, a more expensive option, we do feel that other variants have merit. Specifically, options which look at more cost sharing, such as reviewing and harmonising expansion factors (generators have little if any influence over the construction of assets – it is largely planning considerations which lead to undergrounding for example). A more appropriate time allocation between academic reports and the technical working groups would have helped build more detail onto the different options for socialised charging which would have strengthened the arguments for it. More on this below:

**Process**

We note that this is Ofgem's first Significant Code Review (SCR) for the CUSC and hope that these comments can be taken constructively and built into any future SCRs.

First and foremost we feel that the review and evidence-gathering stage for Project TransmiT was unnecessarily protracted, at the expense of the actual SCR which was rather compressed. This limited the scope for new proposals to be developed and debated during the SCR.

Secondly we feel that Ofgem's consultation is very focused on its favoured options and doesn't benefit from the much wider range of views that it sought from the technical working group.

Ofgem told the technical working group that it is not bound to choose one of the methodologies taken forward into the impact assessment (i.e. that other variants on the spectrum between fully cost reflective and socialised could be taken forward), but we cannot detect any serious consideration of other options in the consultation. While the modelling which has been done is very useful, it is limited.

Furthermore, in the technical working group HIE was very critical of Ofgem's decision on the security factor for islands that become wider or have single circuit links proposed, and yet this is not acknowledged in the consultation, which simply persists with Ofgem's view that Improved ICRP is a significant improvement for these islands. We feel that our contribution has been sought, and then ignored, which is rather disenfranchising. We accept that Ofgem had a different view but would have hoped that the consultation would acknowledge this difference of opinion.

### **Modelling**

In addition to the rather disingenuous definition of Improved ICRP being put forward by Ofgem in the consultation document, HIE has identified two issues with the modelling for this option which may be leading to lower Island charging estimates than could be expected in reality.

- i. Shetland's tariff as modelled by Redpoint seemed very low and it would appear that they have used a link cost of £456M which is a good £100M less than the previous estimate. This figure is taken from the RIIO business plan submission which Ofgem has just published with £456M against Shetland and over £900M against Caithness-Moray. We are checking with SSE to see if they can break this down as we think some of Caithness-Moray should be attributed to Shetland. They are looking into this. But essentially the cost used in TransmiT appears to stop in the middle of the Moray Firth. If this is wider, then the mainland wider tariff will go up. If local, it needs to be added on. Either way we believe it may be an under estimate. We would find any feedback helpful.
- ii. Redpoint used a cost of capital for the next RIIO plan which omits some tax, whereas the TNUoS model uses a cost of capital which fully accounts for tax. This has also contributed to an apparent reduction in Redpoint's numbers for all of the Islands. It might well open up a debate about treatment of tax in TNUoS which wouldn't necessarily be a bad thing, but Ofgem should note that this isn't a real cost reduction for Project TransmiT methodological reasons.

### **Improved ICRP**

HIE had hoped that Project TransmiT would provide more evidence in favour of socialising transmission charges across the UK. However, given the results of the limited modelling undertaken by Redpoint and Ofgem's initial views published in this consultation, we are committed to working with the Regulator to establish solutions for an enduring solution to

transmission charging in the Highlands and Islands through their preferred approach: Improved Investment Cost Reflective Pricing (Improved ICRP).

Current proposals under Improved ICRP would reduce charges in the Highlands by as much as 60% in the short term. While this is welcome, regrettably TNUoS charges are modelled to return to existing levels within four years with the bootstrap uplift and other wider system upgrades. The outcome of Improved ICRP in the Highlands would be to ensure that developers are no worse off than they are at present which runs the risk of slowing down development in a region with some of the UK's best resources.

The situation in the Scottish Islands is entirely different. While estimated charges have been reduced, (although we believe some of the reductions are due to some modelling anomalies rather than attributable to Improved ICRP itself), they are not at the point at which projects will become economic according to a consensus of Island project developers and our own modelling based on figures developed by Redpoint for the DECC review of RO banding. We would welcome further discussion on this. Further reductions are necessary in order to overcome investment hurdles and secure low carbon electricity at a low overall cost to the consumer from the Scottish Islands.

In our view there are two fundamental questions which should underpin the Regulator's approach to connecting the Scottish Islands:

- 1. In the interests of meeting low carbon electricity generation targets at the lowest overall cost to the consumer, does it make economic sense to connect the Scottish Islands?**

Island wind can generate significant levels of low carbon generation at a lower overall cost to the consumer than other low carbon technologies. There is over 1GW of onshore wind proposed in the Scottish Islands with anticipated load factors similar to offshore wind which will receive 2 ROCs initially compared to Island (onshore) wind which will receive 1 or possibly as little as 0.9 of a ROC. The table below shows a simple calculation of the total ROC subsidy 1GW of offshore wind will attract compared to an identical amount of Island wind. This comparison works equally well with any 2 ROC technology but because of the similar load factors, connection costs and the fact that offshore wind is expected to make up half of the UK's 2020 low carbon generation target it works particularly well.

Table 1 : Marginal Additional Cost of Offshore vs. Onshore Island Wind

	Load Factor	ROCs	Anticipated ROC Value	20 Year Project Life RO Subsidy
1GW Offshore Wind	40%	2	£90.00	£6,307,200,000
1GW Onshore Island Wind	40%	1	£45.00	£3,153,600,000
Public saving over 20 yrs 1 vs. 2 ROCs				£3,153,600,000

The table shows that UK consumers will potentially be over £3bn better off over the 20 year life of 1GW of Island wind compared with an identical amount of a technology attracting 2 ROCs with an identical load factor. This is the basis of what we believe is a compelling argument to find a solution to connecting the Scottish Islands beyond the current proposals.

However, we have already stated that Island projects will not be economic under the current Improved ICRP proposed estimated TNUoS charges and that further reductions will be necessary. This would imply that a degree of socialisation is required which would impact on the consumer saving that could be expected from 1GW of onshore Island wind.

The table below calculates the total cost of all three proposed Island links by applying National Grid's standard onshore charging methodology<sup>1</sup> to the capital costs of the links published by SHETL in their business plan and used by Redpoint in their modelling for Ofgem. This provides a 100% cost reflective annuitised charge. No onshore expansion factors have been applied.

Table 2: Total Cost of Island Links

Assumptions	
Capital Cost of Island Links (total cost of connecting Western and Northern Isles from Redpoint modelling)	£975,000,000
Asset Life	50yrs
Rate of return	6.25%
Annuity Factor	0.066
Overhead	1.8%
Annual Cost Recovery	£65,508,300
Cost recovery over 20 yrs	£1,288,158,300
Cost recovery over asset life of 50 yrs	£3,218,658,300

Coincidentally, the total, 100% cost reflective local circuit cost is almost exactly the same as the potential consumer saving outlined in table 1 above. This illustrates that even in a highest cost scenario, the additional marginal cost of connecting 1GW of onshore Island wind with a zero local circuit tariff compared with an identical level of a 2 ROC technology, is virtually nil.

However, the Scottish Islands are an integral part of the UK, economically, culturally, fiscally and legally. By extending this integration to include electrically which had already been agreed in principle with National Grid prior to Project TransmiT, the case for connecting the Scottish Islands in the interests of meeting low carbon generation targets at lowest overall cost becomes even more compelling.

Table 3 below calculates that total potential consumer savings over 20 years between the projects outlined in table 1 modelling two different scenarios with the assumption that Island links are treated with parity with the mainland in that the asset life is 50 years. It shows that fully socialising the cost of the Island links would leave the UK consumer around £1.8bn better off over the 20 year life of 1GW of Island wind vs. a 2 ROC technology with an identical load factor. We don't believe it is necessary to fully socialise the Island interconnectors to establish acceptable investment conditions but our figures illustrate the extent to which this is possible whilst delivering low carbon electricity generation at a low overall cost.

<sup>1</sup> Through bilateral discussions with Island project developers prior to Project TransmiT, National Grid have agreed that once constructed, Island projects are likely to be repowered and that interconnector costs can therefore be recovered over the asset life of 50 years (rather than 20 for offshore assets). This approach is consistent with the fact that the links will benefit end user demand and that the Islands have the potential for a range of generation technologies.

Table 3: Total Consumer Savings

	Anticipated cost of Island links over 20 years - 100% socialised	Anticipated cost of Island links over 20 years - 50% socialised
20/50ths of annuitised capital cost	£1,288,158,300	£644,079,150.0
2 ROC 20 year subsidy	£6,307,200,000	£6,307,200,000
1 ROC 20 year subsidy + grid sharing	£4,441,758,300	£3,797,679,150
Total Public Saving (1 ROC 20 year subsidy + grid sharing - 2 ROC 20 year subsidy)	£1,865,441,700	£2,509,520,850

DECC's consultation document on the review of RO banding highlights in bold (p.11) that 'if a technology costs less than 2 ROC's we should maximise deployment of it.' This was reinforced by the Chief Secretary to the Treasury recently when he called for further expansion of wind power.

***Our view is that solely on the basis of affordability and the realisation of targets at the lowest overall cost; there is a clear obligation to develop an enduring solution to connecting the Scottish Islands.***

## **2. Is the transmission charging methodology the correct way to address Island connections?**

Historically the parties which have the means to develop a solution to Island charges (the Regulator, Government and the System Operator) have been reticent to do so, preferring to deflect responsibility onto respective parties in a cyclic fashion. While they can all provide detail as to why they are justified in that approach, the overall effect is that no progress is made towards an enduring solution.

There are essentially four levers at the disposal of Government and the Regulator which would enable connection of the Scottish Islands:

1. an enduring transmission charge that reflects the importance of the Islands to UK policy ambition and Regulator goals (Project TransmiT)
2. a transmission charge adjustment under Section 185 of the Energy Act
3. a modest uplift in ROCs for Island projects
4. redistribution of existing energy security subsidies to the Islands

**We are firmly of the view that the most appropriate vehicle is Project TransmiT and that a neat, appropriate, timely solution can be delivered through the fundamental review of transmission charges at a low overall cost to consumers. Summarised below are six reasons the other options should be ruled out at this stage.**

### **1. Island ROCs/CfDs**

The UK Government has the ability to award higher ROC bands to stimulate investment and overcome technology hurdles in different forms of renewable electricity generation. While this form of subsidy was never intended to support costs associated with the geographical location of plant; theoretically additional ROCs (and CFDs in future) could be made available to projects which cannot respond to locational signals through the charging methodology, regardless of their strength. For example, no amount of locational signalling will push marine projects to be anywhere other than the Island peripheries or CCS from reliable carbon sinks. In some respects, the Islands are being treated as offshore wind farms in transmission charging terms but are being treated less favourably when it comes to ROCs.

Despite the Regulator's confidence in EMR 'We consider it is robust to assume that the EMR work will set low carbon support to ensure that the legally binding 2020 renewable target is met.'<sup>2</sup> HIE has received no indication that locational uplifts will be considered. Indeed, we believe that there is currently no appetite among Government to investigate this option, preferring instead to look towards Section 185 or Project TransmiT for a solution.

EMR will not fully come into effect until April 2017. Given the compelling illustration of potential consumer savings outlined in this response and the fact that there are consented Island projects in hiatus due to untenable TNUoS estimates; we believe it is entirely appropriate that the charging methodology provides the medium which enables the Scottish Islands to be connected.

Island or locational ROCs did not feature in the recent RO banding review.

## 2. Section 185

The UK Government has retained powers under Section 185 of the Energy Act 2004 to adjust transmission charges to the Scottish Islands. In September 2010, Charles Hendry, Minister of State for Energy announced that DECC would look again at exercising their powers for the Western Isles. In November 2010, HIE, SIC, OIC and CnES met with DECC to discuss the details of the review and agreed the following:

- The Northern Isles would be included.
- A detailed economic case for the need for a cap would be worked up concurrent to Project TransmiT to ensure that if TransmiT did not arrive at an appropriate, enduring solution for the Islands; S.185 could and would be fully implemented in the same timescales.
- DECC would appoint an economist internally to work on S.185 review in order to avoid future issues around IP and costs attached to re-running models (as experienced under the previous review and subsequent attempts to re-fresh the data).
- DECC would consider the legal aspects of a potential adjustment and develop options for the mechanism by which an adjustment would be administered.
- Work will be consistent with and inform TransmiT.

While some initial data gathering and analysis was undertaken by DECC, no detailed modelling has been progressed, nor has there been any progress made on developing the mechanism for implementing an adjustment. A member of DECC's Future Electricity Networks team has been observing Project TransmiT closely and has attended all of the technical working groups which have informed the Redpoint modelling. Indications we have received from DECC are that they expect Project TransmiT to deliver an Island solution which may in part explain the lack of activity on S.185.

In our view there are 5 reasons a S.185 adjustment cannot provide a suitable and timely solution to connecting the Scottish Islands which in summary are:

- i. **Adjustment life:** the current life of a potential adjustment to Islands charges stands at only 10 years. Investment in renewable energy projects is made on the basis of a 20 year project life and would rely on receiving a large adjustment over the first half of the project in order to compensate for an unadjusted transmission charge in future years. This makes the power unnecessarily complex and difficult to administer.

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<sup>2</sup> P.17 Electricity transmission charging: assessment of options for change

- ii. **Geographic vs. Project Adjustment:** any future potential adjustment would be applied to a geographic location rather than a project. The result being that once a single project is constructed, the ten year adjustment period would commence. Any future projects would need to have their transmission charges adjusted over a lesser period (realistically these could be negative charges) which adds yet another layer of complexity and uncertainty.
- iii. **Timing:** it is clear that ability of UK Government to introduce a transmission charge adjustment for the Scottish Islands in a manner which would be fit for purpose is severely compromised under the current S.185 powers. Substantial and fundamental changes requiring primary legislation would be required to develop an adjustment mechanism which would be appropriate and implementable. This process would take at least a year but would realistically require longer which would compromise consented projects already halted by uneconomic transmission charges
- iv. **Uncertainty:** It is by no means certain that S.185 would arrive at an appropriate solution for the Islands.
- v. **Mechanism:** it is clear that current TNUoS charge estimates are untenable for consented projects in the Islands and some degree of socialising of costs is required in order to connect low carbon generation to the grid at a low overall cost to the consumer. S.185 would require DECC to develop mechanism for meeting this modest cost whereas one already exists in the charging methodology which is readily implementable.

### 3. Redistribution of Energy Security Subsidies

Because of the weak (or non existent in the case of Shetland) nature of existing grid connections to the Islands, they require carbon intensive power stations to provide back up and baseload for a secure electricity supply. Currently these power stations receive fuel subsidies to ensure that the cost of the power produced is affordable for end users. Island interconnectors would substantially reduce the need for these power stations but expected TNUoS for the renewables projects triggering the links is untenably high. If the fuel subsidy, which is as high as £19m per annum in Shetland, could be redirected toward the cost of the link- TNUoS charges for renewables projects would become a slightly more realistic prospect. This proposal is akin to a straight swap between carbon intensive and renewable energy generation at zero additional cost to the consumer and serves to reinforce the sense in finding an enduring solution to connecting the Scottish Islands to the main GB system

In addition, current proposals would leave the Islands comparatively worse off than Mainland UK which will compound the disparity in investment decisions between the two locations- further disadvantaging Island projects.

The guiding principles of Ofgem's fundamental review of transmission charging below provide the justification for developing an enduring solution to connecting the Scottish Islands and this is reinforced by views within both DECC and the Treasury. With such clear alignment behind the principle of connecting the Islands, every effort should be made to deliver an enduring solution through Project TransmIT.

### 4. Affordability

Island wind can generate significant levels of low carbon generation at a lower overall cost to the consumer than other low carbon technologies.

### 5. Security

Wind is a 'zero fuel' renewables technology which can contribute effectively to UK ambition to reduce reliance on non-domestic fuel sources for its electricity and heat. While subject to variation in output, wind is completely detached from external influence.

Accepted wisdom is that a geographically dispersed, range of low carbon electricity generation technologies will help the UK overcome issues of system balancing, efficient use of assets and security of supply as we move towards a higher penetration of low carbon generation. The Islands offer a unique opportunity to deliver all three security requirements of 'zero fuel', geographical dispersion and range of technologies to enable counter correlation of output.

#### 6. Decarbonisation

There is over 1GW of Island wind consented, in planning or scoping with in excess of 1GW of wave and tidal capacity in the waters around the Scottish Islands leased for development. This development is speculative in anticipation of a resolution to charging issues which if resolved will allow the Islands to make up around 7% of the UK 2020 renewable electricity generation target.

### **DEVELOPING A SOLUTION: EXTENDING ANNUAL USAGE BASED CHARGING TO THE SCOTTISH ISLANDS**

HIE and our Local Authority partners are not wedded to one solution and believe there is merit in a number of the proposals being developed. We do feel strongly that Project TransmiT is the right vehicle in terms of scope, capability and indeed, timing. A positive outcome for the Islands will rely on there being clear guidance and will to ensure changes are accepted and recommended by a CUSC panel and we are determined that no stone is left unturned in the search for an enduring Islands charging solution. Below is one outline proposal.

In its latest consultation on Project TransmiT, Ofgem comes down in favour of adjusting one of the locational signals in the TNUoS tariff. Ofgem calls this revised model 'Improved ICRP' (Incremental Cost Reflective Pricing).

Improved ICRP modifies Transmission Network Use of System (TNUoS) charges to reflect relationships between network usage and network investment. Very simply, rather than a 100MW wind farm paying for 100MW of capacity, it will pay a charge based on a percentage of time it is actually using the system. This low load factor plant will have an annual usage based charge and so pay less (or are paid less in negative charging zones) where they are deemed to share the network with counter-correlating plant. This has historically been thought of as flexible thermal plant that can operate when the wind isn't blowing.

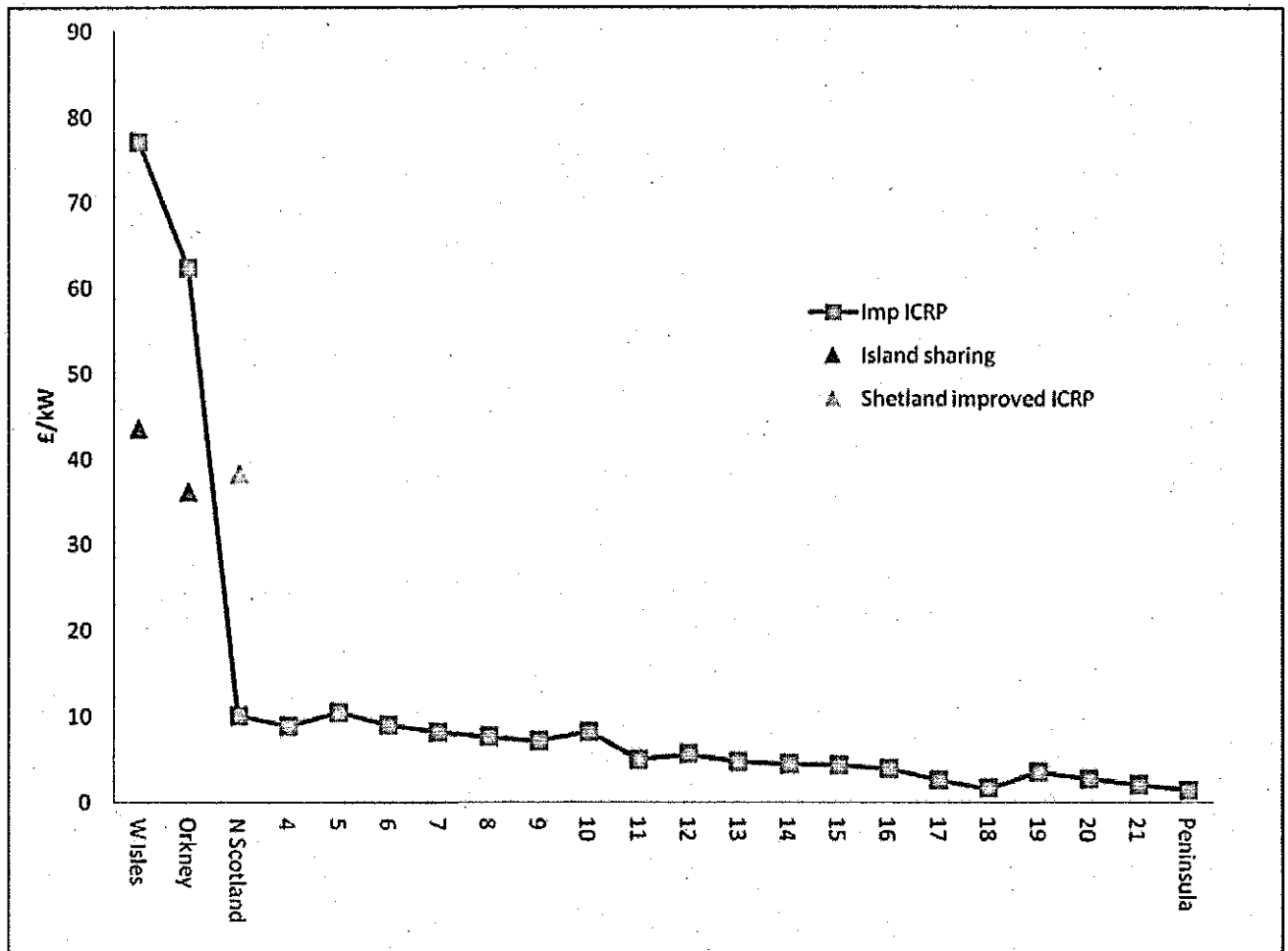
The headline effect of improved ICRP is to compress the onshore wider North-South differential (reduce the gradient). However this compression has only been modelled for the existing so-called "wider" zones (the meshed parts of the network serving load and multiple generators or MITS [Main Interconnected Transmission System]). Ofgem's modelling appears to have omitted the improvement in Improved ICRP for Island transmission nodes that become wider which may just be an oversight.

Instead intermittent plant on the islands is charged the full rated capacity cost of the link. If the links were deemed to be better utilised, with other plant taking up the slack when the wind wasn't blowing, then the costs might be appreciably lower. This kind of sharing will be a feature of Island generation with existing thermal, storage and future technology diversity such as wave and tidal energy sites leased for build out.

Current proposals under Improved ICRP would reduce charges in the Islands but not to the level at which projects would become economic. Further reductions are necessary in order to overcome investment hurdles and secure low carbon electricity at a low overall cost to the consumer from the Scottish Islands. Because Ofgem has highlighted that there is a need for further development of Improved ICRP, there is an opportunity to improve the improvements.

A very simple, timely and low cost solution would be to extend annual usage based charging to the Scottish Islands. This may have been an oversight in the case of the Western Isles where the proposed interconnector will ensure that it is MITS. Figure 1 below shows the existing twenty zones plus the two island groups that are modelled as 'wider' in Redpoint's modelling- the Western Isles and Orkney and also shows Shetland which would require anticipatory treatment (more detail below).

Figure 1. Improved ICRP with Island Sharing



The connected lines are what Ofgem's consultants have modelled for Improved ICRP and for those islands that become wider – the Western Isles and Orkney. An 'island sharing' tariff<sup>3</sup> has been added which very simply multiplies the Island link by a higher-than-average load factor.

<sup>3</sup> This is an approximation of what Improved ICRP might do, and would require better modelling and development work to understand the actual out-turn tariff.

This simple solution would reduce charges to around £35 to £45/kW per annum which may be sufficient to stimulate investment in the Islands.

Figures published by Ofgem (23 January 2012), state that the £7bn of investment in Scottish grid infrastructure it plans to allow over the next decade would add around thirty five pence per year to consumer bills. By extension, the £975m Island interconnector costs modelled by Redpoint would add around five pence per year to consumer bills. The Island sharing modelled above would add an even smaller 2.5 pence per year as only a percentage of the costs would be socialised. While fuel poverty is more prevalent in the North of Scotland and the Islands, these are very small sums which are easy to conceive of as being offset by the creation of relatively high value employment in peripheral areas through the development and deployment of low carbon technologies.

#### **ANTICIPATORY CHANGE IN SUPPORT OF ANNUAL USAGE BASED CHARGE**

Under the current arrangements the proposed transmission upgrades to the Scottish Islands would, in practice, be treated as local works which leads to prohibitively high transmission charges. However, on completion, the upgrades would mean that the Western Isles and potentially Orkney would meet the definition of MITS meaning that future projects would not be subject to the extremely high local element of the charges which is preventing current consented projects from committing to the required grid upgrades.

Similarly, whilst funding approval of the cable to Shetland is to be decided, the proposed configuration of the cable and network security for demand on the Islands would potentially create a situation where all of the Islands become part of the MITS. In which case should the cables go ahead, any generator connection into any of the main Grid Supply Points in the Islands would also be considered to have a zero local circuit tariff with the costs of the cables being shared across all generation. This treatment of the Scottish Islands would also be consistent with the principle that transmission infrastructure that secures demand should always be treated as wider (consistent with demand charges not having a local element).

Because these initially local assets will transition to wider after they are constructed and that this treatment is preventing consented Island projects from being built; it may be necessary to introduce anticipatory change of the interconnectors to be treated as wider in order to enable the lower load factor charges to be applied to them. This early treatment of the Islands as being part of the MITS with the accompanying annual usage based charge would potentially lead to a sufficient reduction in charges to facilitate positive investment decisions in the Islands.

There is significant potential for asset sharing between wind, wave, tidal, storage and existing flexible thermal plant which in Shetland would account for 10% of installed capacity on a fully utilised interconnector. Build out of all of the technologies is planned at different rates so counter correlation may not be immediate but will happen in significant levels. £0.025 per year on consumer bills is a significantly lower overall cost than providing additional ROCs to meet 2020 targets. In addition- section 14 of the Connection and Use of System Code (CUSC), on charging methodologies, states that "connection charges relate to the costs of assets installed solely for and only capable of use by an individual user." With the level of potential sharing and benefits to end user demand in the Islands, there is clear justification for anticipatory change.

#### **DISADVANTAGING PERIPHERAL GENERATION AND SPECIFIC TECHNOLOGIES**

If further motivation is required to find an enduring solution for connecting the Scottish Islands other than the convincing and pure economic case they represent to contribute to an

affordable, secure, decarbonised electricity supply- there is the fact that existing proposals will leave Island projects at a relative disadvantage compared with mainland projects.

Estimated TNUoS charges for the Western Isles in 2008 were around £40/kW per annum. Under current proposals they will have been 'reduced' from £97 to £77/kW making them appreciably worse off than in 2008. The current proposals also reduce mainland charges by as much as 60% with Island charges reduced by around 30%. While all generators have lower charges; Island projects are comparatively worse off than mainland projects which will only serve to exacerbate the negative impact of transmission charges on investment decisions in the Islands. Projects in these locations will be at a relative disadvantage compared to the mainland.

In December 2008, a delegation from UK and Scottish Governments, Ofgem, National Grid SRF, HIE, SIC, OIC, CnES and EWEA attended a hearing on the UK transmission charging methodology at the European Parliament to discuss whether projects in peripheral areas were being discriminated against. The Commission concluded that while there was no legal basis for a challenge, there was the 'clear political requirement for change'.

In support of their concluding remarks at that hearing the Commission redrafted the directive on the promotion of electricity produced from renewable energy sources in the internal electricity market; replacing the term discriminate with disadvantage in order to make the GB charging methodology more open to challenge. The relevant excerpts are quoted below:

*DIRECTIVE 2001/77/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market<sup>4</sup>*

*Article 7, Item 6.*

*6. Member States shall ensure that the charging of transmission and distribution fees does not discriminate against electricity from renewable energy sources, including in particular electricity from renewable energy sources produced in peripheral regions, such as island regions and regions of low population density.*

*DIRECTIVE 2009/28/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC<sup>5</sup>*

*(63) Electricity producers who want to exploit the potential of energy from renewable sources in the peripheral regions of the Community, in particular in island regions and regions of low population density, should, whenever feasible, benefit from reasonable connection costs in order to ensure that they are not unfairly disadvantaged in comparison with producers situated in more central, more industrialised and more densely populated areas.*

If UK Government, the Regulator and System Operator do not feel obliged to connect the Scottish Islands on the basis of clearly beneficial economic and policy characteristics, then

<sup>4</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:283:0033:0033:EN:PDF>

<sup>5</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:en:PDF>

they should be compelled to do by the clear guidance issued by the Commission in 2008 of the 'clear political need for change'.

Technology Specific: Marine Energy

The Crown Estate has granted 1600 MW of seabed leases to wave and tidal developers in the Pentland Firth and Orkney Waters (PFOW) leasing round<sup>6</sup>. Of these, 1050 MW, or 66 per cent, are dependent on Island interconnectors. The Crown Estate has also leased a further 125 MW leases outside of the PFOW leasing round<sup>7</sup>. Of these, 100MW, or 80 per cent are dependent on Island interconnectors. In total, therefore, 66.6 per cent, or two thirds of the UK's total projected wave and tidal energy development aspirations, are dependent on Island interconnectors. By implementing a charging methodology that continues to disadvantage projects in the Scottish Islands, the Regulator would be complicit in hampering the development of an industry in which the UK has a distinct, time limited, global advantage.

**CONCLUSIONS**

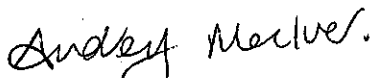
Grid connections to the Scottish Islands are a challenge and an opportunity, with a simple, timely and low-cost solution that is entirely within Ofgem's immediate gift. There may be other solutions but none look likely to deliver useful, timely results. Good work by Ofgem has addressed some of the challenges facing development in the Scottish Highlands and a few arbitrarily chosen near-mainland Islands ensuring that they will be no worse off after significant wider upgrades. However, this is a compromise which, in our opinion is slowing down the rate of renewable deployment and impacting upon the level of competition in generation and supply, ensuring that only large developers will be able to risk developing projects in the Highlands.

The real challenge for Ofgem and others in relation to the remaining Islands is not going to go away without further intervention. The proposal for anticipatory extension of an annual usage based charge to the overlooked Scottish Islands, we believe, meets this challenge.

We would, however, welcome discussion and rationalisation of all of the proposals put forward that offer the potential to deliver a timely, enduring solution to connecting Scotland's Islands.

We hope you find these comments useful and look forward to discussing our proposals with you in more detail.

Yours sincerely



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Joint Head of Energy  
Highlands and Islands Enterprise

In partnership with: Shetland Islands Council, Highland Council, Argyll & Bute Council, Orkney Islands Council, Comhairle nan Eilean Siar

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<sup>6</sup> [http://www.thecrownestate.co.uk/media/71435/pfow\\_development\\_sites\\_map.pdf](http://www.thecrownestate.co.uk/media/71435/pfow_development_sites_map.pdf)

<sup>7</sup> <http://www.thecrownestate.co.uk/energy/wave-and-tidal/our-portfolio/>