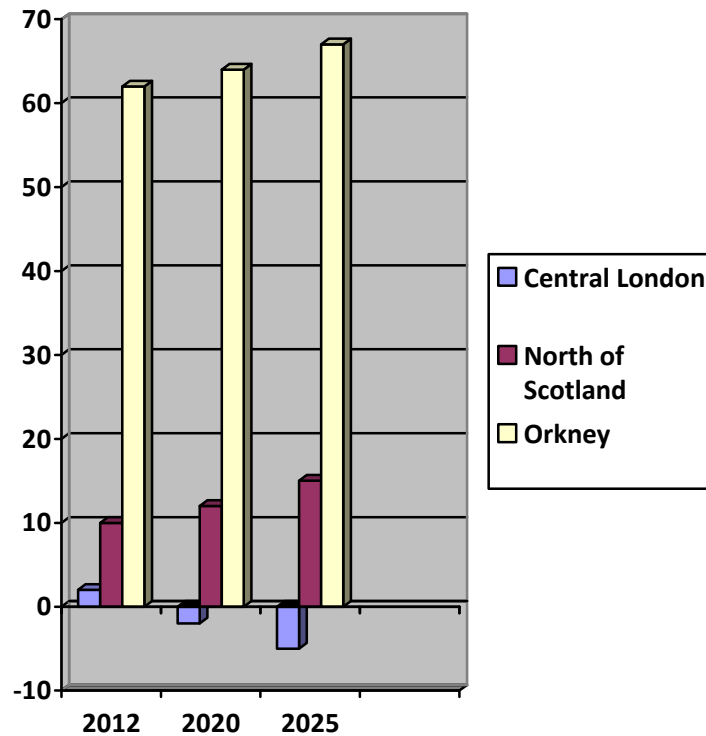


Disadvantaging the UK's Islands

A response from Orkney Islands Council

to Ofgem's Transmission Charging Proposals



Transmission Charges, £/kW, for intermittent generation under Ofgem's preferred option

The Council believes that the transmission charges indicated for Orkney (and for the other Scottish island groups) under Ofgem's preferred option of 'Improved ICRP' are unfair, short-sighted, and inefficient. They will seriously disadvantage the islands (in contravention of EU directives) in developing effective and economic renewables projects to help meet UK renewables targets.

In this document the Council explains its view and argues for island charges which treat the islands as an integral part of the UK, not as a kind of offshore wind turbine platform.

1. Introduction – the Ofgem Consultation

The over-riding concern for Orkney in Ofgem’s Transmission Charging consultation paper centres on the indicated transmission charges for Orkney and the Scottish islands generally, under Ofgem’s preferred option of ‘Improved ICRP’.

The Council acknowledges the benefit of the reduction in indicated charges for Mainland Scotland zones under this option – at least in the initial years before the cost of the ‘bootstrap’ links between Scotland and England pushes charges back up towards where they are at present. We acknowledge that the initially lower mainland charges also benefit the islands, since they must add the nearest mainland zonal charge to the specific ‘island element’ charge. But this benefit is more than outweighed by the size of the island element charge

	Status Quo		Improved ICRP			
	Security factor	Tariff £/kw/pa	Security factor	Tariff, Isles element £/kw/pa	Mainland element £/kw/pa	Total charge £/kw/pa
Orkney	1.8	94	1.0	52	10	62
Shetland	1.0	57	1.0	57	10	67
Western Isles	1.8	121	1.0	67	10	77

Source: Redpoint Modelling

The Council rejects the notion, set out in the consultation document, that the indicated island element charge is much lower than it would be under the status quo, as illustrated in the above table. This disingenuous claim is made on the basis that the security factor would reduce from 1.8 under the status quo to 1.0 under ‘Improved ICRP.’ But the Council is unaware of a security factor of 1.8 ever having been discussed or proposed for a single cable to the islands under the status quo, as a single cable would not provide security for generators.

Orkney is an integral part of the UK, and it should be treated as an integral part of the UK transmission system, not burdened with a disproportionately high transmission charge

compared with mainland UK. The islands and the seas around them can make an enormous contribution to UK carbon reduction targets, provided they are treated as part of the UK, not as an offshore wind power platform.

2. Orkney's Renewables Contributing to National Targets

The development of a world class renewable industry in the islands, providing employment and incomes as the Flotta oil terminal declines in importance, is a key strategic Council objective, and clearly this is a powerful motivating force in the Council's position on transmission charging. However in this case the local objectives are clearly aligned with national objectives regarding carbon reduction, the increasing use of renewables and the de-carbonisation of the UK energy supply. Orkney has long experience of renewable energy trials dating back to the early post-war era, but in particular in the last 10 years it has been leading the way in the development of marine energy, with the establishment of the European Marine Energy Centre (EMEC) at Stromness in 1993. The Crown Estate leases which target the development of 1.6 GW of marine energy in the Pentland Firth and Orkney Waters (1.05GW of this in the waters around Orkney), and the likely designation of PFOW as a Marine Energy Park, have given and will continue to give an huge boost to the development of wave and tidal energy in the area, underlining Orkney's key position as a centre of renewable development, rather than an outpost.

As PFOW and more particularly Orkney becomes increasingly identified as a leading global centre for the development of marine energy, the imposition of disproportionately high transmission charges will be seen at completely at odds with this, acting as and perceived to be a brake on such development. It will delay and hamper the potential contribution of over 1 GW of renewable energy from a range of technologies, not just wave and tidal stream but also onshore and near-shore wind. This range of technologies is itself another strength of Orkney's potential for renewable energy.

In the long run, post-2020, it is estimated that the Orkney Islands, and the waters around them, could contribute up to 3 GW to the UK renewable production.

3. Charging Options – an Overview

a) The Socialised Option

The Ofgem proposal to drop the socialised option from further consideration is a matter of regret to the Council. Obviously this option, with its flat rate ‘postage stamp’ charge, would deliver most benefit to the islands. But it would also deliver benefits nationally to consumers, by reducing the risk that renewable targets for 2020 will not be met under other options. And of course targets will not remain unchanged after 2020, they will carry on rising in the years up to 2050.

Thus there are benefits to be set against the extra transmission and constraint costs of the socialised option, which are quantified in the consultation paper. The Council recognises that these extra costs will fall on consumers, most heavily on consumers in the North who currently benefit from lower Demand charges. Fuel poverty is a major problem in the islands. However, the Council would point out that there are three avenues for reducing fuel poverty – reducing fuel prices, reducing energy use, and increasing incomes. ‘Improved ICRP’ will increase prices less than the socialised option would, but will not reduce them, and meantime rising fossil fuel prices will be increasing them. The full development of a major renewables industry in the islands will provide employment and increase incomes, and thus has a key part to play in reducing fuel poverty in the islands. The socialised option would make this much easier to bring about, and this needs to be weighed against the moderating of demand charges under ‘Improved ICRP.’

b) The Local/Wider split

It is the treatment of Orkney’s future grid connections to the mainland as ‘local’ works, and the resulting application of a cost reflective islands element to Orkney’s transmission charge, which results in the disproportionately high transmission charge under ‘Improved ICRP.’ In the Council’s view the Connection and Use of System Codes (CUSC) rules which underlie this split were not devised for the connection of renewable energy in peripheral areas, but for the connection of large thermal stations at relatively short distances from the Main Integrated Transmission System (MITS). The report of the CMP192 CUSC panel identified the fact that that the ratio of local to wider works can be 25:1 for the islands connecting to the MITS, against a more usual maximum of 3 or 4:1.

The application of the wider/local works split, devised in different circumstances, to the new circumstance of the urgent need to develop renewable energy, located mainly at the

periphery of the UK, is in the Council's view inappropriate, and results in glaringly disproportionate charges for the best areas in the UK for renewable energy.

c) Lower cost Island Renewables

The claim to have the best resources in the UK is supported by the comparative analysis of the costs of onshore islands and of offshore wind-generated electricity. The higher capital and operating costs of offshore wind, compared with onshore island wind, requires double ROCs to make it economic. This in turn makes offshore wind-generated electricity considerably more expensive for consumers than island wind-generated power. Discouragement of renewables in the islands, by the imposition of high transmission charges, will serve to increase energy costs to consumers by increasing reliance on offshore wind energy.

The Council is aware of the Redpoint modelling report's claim that renewable projects will still be economic in Orkney and Shetland under 'Improved ICRP'. It does not believe this analysis is valid, for the following reasons;

- a) it ignores the fact that the indicated high transmission charges will get even higher once the bootstraps are built;
- b) its assumption of a constant 45% capacity factor ignores the uncertainties created by fluctuations in the annual average capacity factor, such as seen between 2010 and 2011;
- c) The 45% capacity factor for Orkney is anyway too high, and should be similar to the figure for the Western Isles (35%), which tend to be more exposed to prevailing westerly winds than is Orkney;
- d) and it ignores the attraction to footloose investors of shifting investment from high-charge Orkney to the much lower-charge North of Scotland, where capacity factors are similar and charges much lower.

Ofgem sees protection of existing and future consumers as its core remit. In the Council's view, high island transmission charges will discourage investment in islands renewables, and result in more reliance on offshore wind, at higher cost to consumers. This conclusion holds true even if island cable costs are socialised across all consumers (detailed analysis is included in the joint Highlands and Islands response to this consultation.)

d) The Islands are Part of the UK

Finally the Council would point out that in receiving 1 ROC for wind projects instead of the 2 ROCs which offshore wind receives, the islands are being treated on a par with mainland UK. Yet the proposed transmission charges do not treat the islands on a comparable basis, but put them on a par with offshore wind farms. This inconsistency disadvantages the islands, and even though the divergent treatments come from different organisations (Ofgem and DECC), it is in the Council's view indefensible.

The islands are an integral part of the UK and it is a vital point of principle for the Council that they should be treated as such. Unlike offshore wind farms, the islands are inhabited by substantial communities which provide Demand for electricity, as well as serving as a base for the production of electricity.

In summary, the Council's view is that:

- a) The dropping of the socialised option is a matter of regret, and overlooks the benefits of the option which can be set against its additional costs;
- b) Fuel poverty will be tackled as much by creating a flourishing renewables industry in the islands as by reducing the potential increase in demand charges in consumers' bills;
- c) The local/wider works split which lies at the heart of the high island charges under 'Improved ICRP' is based on out-dated definitions which are inappropriate for capturing renewable energy located primarily at the periphery of the UK;
- d) The high transmission charges risk deterring the development of island renewables which are cheaper to the consumer than offshore wind power;
- e) The Redpoint conclusion that island renewable projects will still be economic under 'Improved ICRP' is invalid because it ignores at least three relevant factors;
- f) The islands are treated as an integral part of the UK for ROCs, and should not be treated on the same basis as offshore wind farms for transmission charging.

4. The Way Forward

a) Section 185 Capping Power

Before setting out ways in which the problem of high island charges can be ameliorated, one potential solution – the Section 185 capping power – needs to be discussed. This power to cap transmission charges in an area where these could deter investment, and its potential application as a scheme for the islands, is clearly seen by some as a way of retaining the consistency and integrity of a charging methodology whilst ameliorating its impact on the islands. In the Council's view the s.85 power is not a satisfactory answer to high island transmission charges. The Council has reached this view after regular contact with DECC, and after supplying what data it was able to gather on renewables costs and capacity factors.

The legislation permits only two five year schemes, with a review in between, but the life of a renewable project is around 20 years. Thus investors will have certainty about charges only for the first half of the life of their projects. More than this, since the scheme will likely be initiated once the first island cable, and the first island connections, are completed, islands and projects which come on stream after the initial trigger point will receive a decreasing number of years of capped charges. There could be an initial rush of projects at the start of the scheme, and a subsequent equally rapid falling away as the years tick away. This does not constitute a firm and stable basis for the development of renewable in the islands.

The Council believes that a solution for the islands must be found within the framework of the favoured 'Improved ICRP' option.

b) The Sharing Factor for Intermittent Generation

Reduction of mainland zonal charges in the north of Scotland under Improved ICRP is due to the application of a factor reflecting sharing of transmission capacity by renewables generators, which means effectively they pay for usage rather than on the basis of installed capacity. In the Council's view this treatment should also be applied to the islands.

Capacity in the islands will be shared by different technologies, located in different parts of the islands, which generate at different times. In addition, when no renewable generation is taking place, Demand will be met by using the same transmission grid. In the Council's view there is sufficient potential sharing to justify the application of the sharing factor to

the islands, thereby reducing the islands element of the charge. Treatment of intermittent generation throughout the UK should be consistent.

c) The Islands as Part of the Main Integrated Transmission System (MITS)

It is the islands distance from the MITS which results in the unusual length of local works to connect the islands to the MITS. But it is widely recognised that, if and when development of renewables in the islands moves forward, the islands will become part of the MITS. This is referred to in the Redpoint modelling report. In Orkney's case, the construction of two transmission cables between the islands and the Mainland would meet the qualifying definition of two cables and a Grid Supply Point (GSP). The first planned cable is the 132kV west coast cable for the marine energy developments to the west of Orkney. The second would be an HVDC cable following the same route, and/or an east coast 132kV cable, to serve onshore wind developments on the east side of Orkney.

The Council believes that Orkney's integration in the MITS better reflects the developing reality in the PFOW and Orkney waters in particular. There is the potential for a range of renewables projects in and around the islands connecting into the MITS, paying for local works to connect into the Orkney zone, and an Orkney zonal charge which reflects transmission costs from Orkney but shares these with Demand, as in every Mainland zone, and is more on a par with zonal charges throughout mainland UK. This is a scenario which will facilitate the large-scale development of renewable for the UK.

Whilst we are not there yet, the fact that this could and will come about, to the great benefit of consumers in the UK, certainly constitutes in the Council's view an added reason for the application to currently indicated transmission charges of the sharing factor as noted above.

d) Average GB Expansion Factor

The Council is aware of the Scottish Renewables Forum (SRF) proposal, contained in SRF's response, for the application of an average GB expansion factor to the calculation of charges for island subsea cables, in place of a specific cost-reflective charge. It supports this as an alternative mechanism for bringing island charges down to a reasonable level.

5. Disadvantaging the Islands

The Council is appreciative of the importance which the European Union (EU) attaches to equal treatment for the islands in the pursuance of the principle of territorial cohesion. This is specifically reflected in the requirement in the Energy Directive for the application of reasonable transmission charges for peripheral areas and especially for islands, in order not to disadvantage them

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/EC¹

(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.

As stated above both explicitly and implicitly, the Council believes that the current Ofgem transmission proposals do disadvantage the islands, and that they therefore contravene the letter and the spirit of the Directive. The Council believes that Ofgem should accept this point and use it as a basis to come forward with more reasonable proposals for island charges.

The Council also notes the proposal within the Ofgem consultation paper to alter the G:D split from 27:73 to 15:85 to comply with the EU tariffication guideline on transmission charges, that average charges should be no higher than 2.50 euros per MWhr. The Council calculates that the indicated charge for Orkney at £62/kW equates to (using a 45% capacity factor) £15.80 per MWhr, equivalent to 19 euros (at 1 euro= 83p). At some 7.5 times the average charge, the indicated Orkney charge is in the Council's view unreasonable, not in keeping with the spirit of the EU directive and puts renewables projects in the islands at a disadvantage.

6. Conclusion

The Council has set out in this document the reasons why it strongly objects to the indicated transmission charges for Orkney under Ofgem's preferred 'Improved ICRP' option. Whilst it understands the desire for a consistent methodology to be applied throughout the UK, it

¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:en:PDF>

believes that the application of this methodology (particularly the wider/local split) is inappropriate, taking insufficient account of the realities of the peripheral location of the best renewable resources – and in Orkney’s case this encompasses a diverse range of technologies as well as the extent of resources in and around the islands.

In terms of solutions, the Council discounts the s.185 capping power, the details of which it regards as unsatisfactory. It believes that charging in Orkney should be on the same basis as the proposed intermittent generation charge on the mainland, i.e. with the application of the sharing factor. This will be consistent with the EU Directive requirement of no disadvantage for islands, and in keeping with the spirit of the EU tariffication guideline. It recognises the fact that in the medium term Orkney will become part of the MITS, acting as a collector for a range of renewable resources, probably as a charging zone on its own, with a zonal charge shared with end consumers as in other zones. This will make a major and vital contribution to UK strategic renewables targets, and will deliver energy to consumers at lower costs than offshore wind energy..

Orkney Islands Council

Chief Executive’s Office

13 February 2012