



**THE RENEWABLES OBLIGATION (SCOTLAND) ORDER 2011
Scottish Government Consultation on Review of ROC Bands**

Background

The RSPB in Scotland is supported by nearly 90,000 members from both urban and rural areas. Bird populations reflect the health of the natural environment on which our future depends. Climate change, agricultural intensification, expansion of urban areas, new transport and energy infrastructure, and over-exploitation of our seas all pose major threats to birds.

RSPB Scotland's work covers a wide range of issues including planning, climate change, energy, marine issues, water, trade and agriculture. We also have practical experience of managing land and coast for conservation, farming, forestry and other enterprises. As well as commenting on national policy issues, our professional planning and conservation staff are regularly involved with individual project proposals and we comment on several hundred individual proposals in Scotland each year. In combination with RSPB staff across the UK, and our international partners in Birdlife International, we have cross-cutting expertise and experience of spatial planning, marine and sustainability issues within Scotland, the UK and internationally.

Summary of key issues

RSPB Scotland welcomes the opportunity to comment on the proposed changes to the Renewables Obligation (Scotland) Order (ROS). We believe that the development of renewable energy will have a vital part to play in reducing the greenhouse gas emissions responsible for climate change.

Scotland has enormous renewable energy resources and there is currently a once-in-a-lifetime opportunity to develop a sustainable, green, low carbon economy for Scotland. However, for renewable energy to be truly sustainable, government, industry and stakeholders must ensure that it is appropriately located and at an appropriate scale as to avoid impacting on our sensitive wildlife and habitats.

The Renewables Obligation is an opportunity to ensure that only truly sustainable technologies with minimal impacts on biodiversity and the environment are incentivised, and can help Scotland meet its ambitious climate change and renewable energy targets in harmony with wildlife.

In our response to this consultation, we have focussed our comments on the principles of those changes proposed to the Renewables Obligation Certificate (ROC) bands and as such have not gone into the detail of the economics of how such changes would influence the deployment of individual technologies.

Consultation Questions

Other than the exceptions as set out in this document, do you agree that the Scottish Government should amend its bands and legislation in line with the proposals for the rest of the UK? If not, please explain where Scotland should differ and why (providing evidence as necessary).

We support many of the proposals put forward by the Scottish Government in this consultation, including the removal of support for large-scale, electricity-only biomass generation plants and the increase of support for wave and tidal technologies. Detailed comments are provided on the proposals for offshore and onshore wind below.

Offshore Wind

We recognise that the purpose of the ROS is to support emerging technologies, particularly at development and pre-commercial stages, and we fully accept the principle that subsidies and support for renewable technologies decrease as costs decrease. However, we consider it may be premature to reduce support for offshore wind as early as 2015/16 whilst the costs of deployment are likely to remain high, especially given the considerable expansion of offshore wind that will be required to help meet the Scottish Government's target of generating the equivalent of 100% electricity from renewables by 2020.

Onshore wind

While onshore wind will continue to play a key role in meeting Scotland's renewable energy targets, we consider that it is appropriate that support available under the ROS decreases as costs for commercially deployed technologies such as onshore wind decrease. Therefore, we consider a slight reduction in the number of ROCs available to onshore wind after 2013 to be reasonable.

Do you agree with our proposal to set enhanced bands for both wave and tidal stream generation at 5 ROCs?

Scotland has a large proportion of the UK's tidal stream and wave resources, offering a significant source of low carbon, renewable energy. If deployed with care and sited correctly, we believe this resource can be exploited without unacceptable impacts on the marine environment, and therefore strongly support public intervention to research, develop and deploy these technologies sustainably. In the absence of proactive measures to mitigate impacts, however, marine renewables risk having a significant detrimental impact on seabirds and marine mammals in particular, and this would result in significant public concern and opposition to further deployment.

Provided measures to achieve sustainable solutions are in place, we believe that the Scottish Government should increase support for tidal stream to the level of support received by wave technologies in Scotland (5ROC/MWh). We believe that the higher support available in Scotland, along with clear political commitment and initiatives such as the Saltire prize, has led to Scotland becoming a global leader in this new industry.

However, Scotland's tidal range resource is considerably more difficult to exploit without causing unacceptable damage to wildlife and increasing flood risk. The ROS offers support to tidal range technologies (beneath 1GW in size), but at a lower level than the enhanced support available for tidal stream technologies. It is our view that no ROC support should be offered for major tidal range schemes in order to discourage potentially adverse environmental impacts from tidal range developments. Future support must be targeted at low impact technologies, and consideration given to what combination of R&D investment and ROC support is needed to develop and commercialise lower-impact tidal range technologies. This should be coupled with a removal of ROC support for shore-to-shore high head barrage schemes, which would send a clear signal to potential developers that impacts of such magnitude are unacceptable, and that rewards will be reaped by those who innovate lower impact approaches.

What are your views on the need for a capacity threshold to apply in conjunction with the enhanced wave and tidal ROC rate? If there is such a need, should the threshold apply at an aggregated level or to individual projects?

The need for a capacity threshold

Given the emerging nature of the wave and tidal sector and Scotland's huge wave and tidal resources, we do not consider there to be a need to introduce a capacity threshold on enhanced support for wave and tidal technologies under the ROC. We are concerned that if a cap were introduced, this would disincentivise research and development in this emerging technology and severely damage the development of the wave and tidal industry in Scotland, thus limiting the potential of wave and tidal technologies to deliver renewable energy and sustainable economic growth for Scotland. Therefore, we would urge the Scottish Government not to introduce a capacity threshold at such an early stage in the

development of the sector, if it wishes to see Scotland fulfil its potential and become a world-leader in wave and tidal energy generation and a major manufacturing basis for such technologies.

Aggregated v individual project cap

If a cap were to be introduced, we would ask the Scottish Government to consider whether a technology based cap would be more appropriate as this would incentivise the R&D of different device types as well as encouraging new projects to come forward into the development stages.

Views of UK proposals

We consider a project level cap of 30MW for enhanced support to be inappropriate and are concerned that this will jeopardise the development of the UK wave and tidal sector. Given Scotland's considerable wave and tidal resources, we would urge the Scottish Government to ensure that enhanced support is available for projects beyond 30MW.

What are your views on our proposal not to incentivise new large scale dedicated biomass electricity? Under which circumstances under would it be appropriate to set a threshold for electricity only generation? At what level should any threshold be set?

RSPB Scotland fully supports the Scottish Government's commitment to disincentivise large-scale, electricity-only biomass generation given our concerns regarding the sustainability of biomass sourcing in terms of direct biodiversity impacts and greenhouse gas emissions of transporting biomass feedstocks from overseas where insufficient local sources exist. This is also in line with the recommendations of a recent UK Committee on Climate Change report¹ which calls on the UK Government to follow the Scottish Government's lead by removing subsidies for biomass generation under the Renewables Obligation.

Small-scale generation, below 5MW, is currently supported through the Feed in Tariff. We therefore see no need for any level of ROC support for electricity-only biomass generation. Setting a capacity threshold at 10MW for ROC support, for example, would still require a minimum of 60,000 oven dried tonnes (odt) woodfuel per annum² which is equivalent to 2% of Scotland's potential annual production of sustainable biomass from forests and woodlands³.

We welcome the acknowledgement by the Scottish Government that there are potential supply issues if large-scale biomass plants are consented. However, we are particularly concerned by the option proposed in the consultation document (para 3.10) to "*condition any large-scale consent under s36 to require woody biomass supply to be imported*". This could have considerable sustainability issues including direct biodiversity impacts for feedstocks from unsustainable sources that may be damaging to biodiversity, and increased greenhouse gas emissions from transportation. Unless there could be guarantees that imported feedstocks would be genuinely sustainable, this proposal would be completely unacceptable. For biomass from forests and woodlands the RSPB would define 'sustainable' as Forest Stewardship Council (FSC) certified forest management and chain of custody, which has been sourced and transported in a low carbon manner.

A recent report⁴ by the RSPB has revealed that, if consented, power stations currently proposed in the UK which would rely on imported wood fuel would contribute to the destruction of forest habitats overseas and exacerbate the pressures of climate change. An analysis of the emerging UK biomass sector reveals that the percentage of biomass fuel which would be sourced from imported wood would rise from 13% to 68%. The RSPB has also commissioned a report which sets out how the UK could develop an environmentally

¹ UK Committee on Climate Change (December 2012) Bioenergy review:

[http://downloads.theccc.org.uk/s3.amazonaws.com/Bioenergy/1463%20CCC Bioenergy%20review bookmarked 1.pdf](http://downloads.theccc.org.uk/s3.amazonaws.com/Bioenergy/1463%20CCC%20Bioenergy%20review%20bookmarked%201.pdf)

² Calculation factor 6,000 odt/MW per year; source: http://www.sqw.co.uk/file_download/341

³ <http://www.eforestry.gov.uk/woodfuel/>

⁴ RSPB (Sept 2011) Bioenergy: a burning issue

<http://www.rspb.org.uk/ourwork/policy/climatechange/action/ukenergy/bioenergy/index.aspx>

responsible bioenergy industry⁵ now and into the future. It identifies a number of ways that the UK could enhance its own production of bioenergy sustainably and avoid the need for imports, such as establishing a bioenergy sustainability hierarchy, improving waste collection and separation infrastructure to make energy from waste solutions viable, and encouraging the management of the considerable area of undermanaged woodlands. The proposals in the report would deliver both jobs and growth in sectors such as waste management, agriculture and forest management.

What are your views on:

- **whether or not our incentives under the ROS in Scotland should mirror the UK Government's proposals on enhanced co-firing and conversion**
- **whether a maximum threshold for biomass CHP plants is required**
- **the continued appropriateness of the 90% biomass content threshold?**

We agree that the UK Government's proposals for enhanced co-firing and conversion raise similar questions as the promotion of large scale dedicated biomass. The ROS should not incentivise the use of unsustainable biomass feedstock regardless of the technology in question, particularly that from overseas which may incur high carbon costs from transportation.

The environmental and social risks of different forms of bioenergy feedstocks occur irrespective of whether they are used as dedicated biomass, co-firing or conversion. For each of these technologies we believe that the level of support for biomass should be set according to a biomass sustainability hierarchy. One example⁶ of such a hierarchy is the following where bioenergy resources offering the greatest environmental benefits are at the top of the hierarchy as follows:

- (1) Genuinely residual wastes;
- (2) Arisings produced by habitat conservation and landscape management;
- (3) Agricultural and forestry co-products and residues;
- (4) Biomass harvested from new and existing woodlands;
- (5) Dedicated energy crops.

Establishing a sustainability hierarchy requires an assessment of which bioenergy production pathways pose unacceptable risks to the climate and environment, and which will be critical to achieving renewable energy and climate targets. The sustainability hierarchy should be based on minimising unacceptable risks, and financial support through the Renewables Obligation adjusted to encourage appropriate feedstock production accordingly.

Maximum threshold for biomass Combined Heat & Power (CHP)

It is our view that support should be redirected towards small-scale biomass, which maximises use of local supply of sustainable feedstocks, reduces the need for transportation, and ensures efficiency is maximised through heat capture.

Small-scale CHP or heat-only plants are much more efficient and their construction should be incentivised at the outset. We would therefore support a threshold for biomass CHP. Emissions from a CHP plant compared to an electricity-only plant in terms of kgCO₂/MWh of useful energy generated are four times less for CHP⁷. It is difficult, if not impossible in some cases, to retrofit a CHP system, which makes it imperative that biomass plants – like all other new combustion plants – are designed and sited so that the heat can be utilised from the outset.

⁵ IEEP (Dec 2011) UK responsible bioenergy report

<http://www.rspb.org.uk/ourwork/policy/climatechange/action/ukenergy/bioenergy/index.aspx>

⁶ http://www.ieep.eu/assets/856/IEEP_UK_responsible_bioenergy.pdf

⁷ Environment Agency (2009) "Carbon sink or carbon sinner"

There may be opportunities with small scale heat biomass initiatives in Scotland, using locally grown material, to promote biodiversity positive management in native woodlands and restructure forestry plantations for priority species. Such initiatives could also provide rural development benefits related to encouraging collaborative approaches to woodland management planning, harvesting and marketing, as well as energy security for isolated communities.

The appropriateness of the 90% biomass content threshold

No comment.

What are your views on the proposals as published for governing transition between the RO and its proposed replacement? Do you believe that there are particular issues as far as Scottish projects are concerned, and which might justify a different approach?

No comment

We would also be grateful to hear your views on the existing proposals for grace periods, and whether there are any additional circumstances or approaches which we should consider.

No comment

For further information please contact:

Kelsie Pettit, Conservation Policy Officer (Energy and Climate)

RSPB Scotland, 2 Lochside View, Edinburgh Park, Edinburgh EH12 9DH

Tel: 0131 317 4100 Email: kelsie.pettit@rspb.org.uk

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