



Introduction of Banding to the Renewables Obligation (Scotland)

1. The Royal Society of Edinburgh (RSE) is pleased to respond to the Scottish Government's preliminary consultation on the 'Introduction of Banding to the Renewables Obligation (Scotland)' and comment on the emerging proposals. We hope that the points raised in the submission will influence the formal statutory consultation and draft Order expected later this year. These comments have been compiled with the assistance of a number of expert Fellows of the RSE and points made in the RSE's Report, *Energy Issues for Scotland*, have also been drawn upon. If the Scottish Government wished to discuss any aspect of the submission, the RSE would be happy to arrange for a number of the Fellows involved in preparing the submission to be available for a meeting.
2. The importance of renewable energy is that it reduces "whole life" CO₂ emissions from overall electricity production and it increases the diversity of fuel resources and hence security of supply. We note that, although the present Renewables Obligation Certificates (ROCs) and the Climate Change Levy are available for energy from most renewable sources, decisions taken to date strongly favour market technologies rather than those further from market adoption. As a result, onshore wind turbines have become commercially viable, but this mechanism has not stimulated development of other renewable sources other than for local use. We consider that once a technology has been market proven then it is an unwise policy to continue what amounts to a long-term subsidy. The RO scheme is forecast to cost UK business and domestic customers over £30bn¹. Introducing specific ROCs, for example for marine technologies, amounts to trying to 'pick winners'. We have profound doubts about the rationale and validity of the ROCs regime. It is designed to be technically neutral at the point of production of renewables, but is not designed directly to stimulate the reduction of carbon emissions. It seems, in practice, that the mechanism provides technology-led outcomes rather than emissions reduction outcomes. Incentives and disincentives applied at the point of production, in direct support of objectives, leave the market to decide how best to meet the national requirements, are truly technology blind, and may encourage investment in research to find new and more efficient means of meeting the objectives.
3. Although we have reservations about the ROC system, given the reluctance of both BERR and the Scottish Government to overhaul the RO mechanism it

¹ <http://www.ofgem.gov.uk/Sustainability/Environment/Policy/Documents/1/16669-ROrespJan.pdf>

seems inevitable that it will be retained for the time being, and therefore we will proceed to comment on the current proposals. As the consultation paper sets out, in order to bring forward emerging renewable technologies, “banding” of support levels for different technologies has been proposed by BERR. There is a danger that banding could result in the implementation of immature and inefficient technology if providers decide to off-set the costs of technical development by the subsidy received. Furthermore, the current RO mechanism is criticised for being bureaucratic, expensive and inefficient and it could be argued that banding will increase the administrative complexity and undermine the objectives.

4. We agree that under a carefully designed banding regime, the MSO would not be necessary. We do not think that ROCx2 will be sufficient to make wave and tidal energy fully competitive with other renewables. As the consultation paper points out, Ernst & Young undertook a study into the costs of renewable electricity production and this recommended that marine energy would initially need three times as much support as onshore wind. Furthermore, according to analysis conducted by PB Power on the costs of generating electricity², there is a significant difference between the costs of wave power as compared with tidal power. Until there is reasonable evidence that marine technologies are technically viable, and their costs are predictable, choosing a ROCx2 figure for support appears to be somewhat arbitrary and not based upon any scientific evidence. If our views above are proved to be correct, i.e. that ROCx2 is inadequate for marine technologies, and that further increases are found to be necessary, the whole renewable energy support system is likely to become discredited. Given the list of emerging technologies eligible for multiple ROC support, the diversity of technology types cannot be stimulated by a single multiplier.
5. In terms of the proposals for energy from waste, we agree that there should be a much greater emphasis on waste prevention and incentives on producers to reduce waste. We take the view that as there will still be large quantities of waste material, then it is far more preferable to reuse it for energy than it is to place it in landfill sites. We see potential, therefore, for the further development of appropriately sited district heating and combined heat and power schemes with modern emission effective incinerators fuelled by municipal waste. There are also interesting possibilities for producing synthetic liquid fuels for transport from waste. It is important that support is in place to encourage such developments.

Additional Information and References

In responding to this consultation the Society would like to draw attention to the following Royal Society of Edinburgh responses which are of relevance to this subject:

² *Powering the Nation*; PB Power - <http://www.pbworld.co.uk/index.php?doc=528>

The Royal Society of Edinburgh, Scotland's National Academy, is Scottish Charity No. SC000470

- The Royal Society of Edinburgh's *Inquiry into Energy Issues for Scotland* (June 2006).
- The Royal Society of Edinburgh's submission to the Select Committee on Science and Technology Inquiry into *Renewable Energy-Generation Technologies* (July 2007).
- The Royal Society of Edinburgh's submission to the Select Committee on Economic Affairs Inquiry into *The Economics of Renewable Energy* (June 2008).

Any enquiries about this submission and others should be addressed to the RSE's Consultations Officer, Mr William Hardie (email: evidenceadvice@royalsoced.org.uk).

Responses are published on the RSE website (www.royalsoced.org.uk).

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