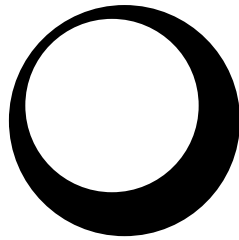


# **Scotland's Renewable Energy Potential – Beyond 2010**

**Overview of the responses  
March 25th 2003**





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## Overview of the responses

### **Purpose of the consultation**

1. The consultation underlines the Scottish Executive’s commitment to developing and exploiting Scotland’s renewable energy potential, a commitment which sits at the heart of our Climate Change Programme. The introduction last year of the Renewables Obligation Scotland (ROS) provides a framework for the increased development of renewable energy in Scotland. Scotland’s enormous potential renewable resource and the success of the ROS in stimulating development interest, were key influences on our decision to consult. The consultation focussed upon the potential benefits of long-term renewables development, and sought views on the implications and actions required to achieve our ambitious targets. This overview summarises the feedback received in response to the specific questions which our consultation posed.

2. We received a total of 113 responses from the following interest groups:

Business	35
Non-governmental organisations (NGOs) or Non departmental public bodies (NDPBs)	41
Members of the public/political parties	29
Local authorities	6
Unions	2

### **Consultation questions**

#### **Do you share our view that Scotland can comfortably expect to meet and exceed our existing target of 18% renewables by 2010?**

3. Two thirds of the respondents were confident that the target of 18% generation from renewable sources by 2010 would be met. However, many of these respondents mentioned a number of constraints that would have to be addressed. These are, in general, the same constraints that would need to be overcome if Scotland was to reach a higher, 2020 target, and are discussed further at paragraphs 5 to 10 below.

#### **Q: Is it reasonable to suggest that by 2020, we can achieve a position whereby Scotland could generate as much as 40% of its energy from renewable sources by 2020? What measures would be required to realise this potential?**

##### ***A 40% target***

4. Two thirds of all respondents expressed broad support for the Executive’s aspiration to increase energy produced from renewable sources. Most respondents in favour concluded that the action of setting even an aspirational target would help mobilise action to resolve the barriers currently hindering developments. A very

small number of respondents suggested that it would be inappropriate for Scotland to set a higher target without considering the position in respect of targets for renewables in other parts of the UK, whilst similar numbers believed that there could be merit in setting regional sub-targets within any future Scottish target.

***Measures required to reach a 40% target and constraints to progress***

5. Just over half of the respondents commented on planning matters. Respondents indicated that a more positive, consistent or streamlined planning process would be required to reach a 40% target. The revision of NPPG6 was widely welcomed, although a small number of respondents called for further changes. Fifteen respondents commented on local authority best practice: it was suggested that the Executive do more to ensure that best practice on NPPG 6 was being followed at a local level; another suggestion was that local planners should be more aware of national objectives, and that there should be more local renewables expertise available for planning departments to draw upon. Those discussing whether developments under 50 MW were best dealt with by local authorities generally concluded in favour of the existing system. A very small number suggested that procedure be changed to bring applications together under one process, either by bringing all applications under Section 36 of the 1989 Electricity Act for determination by Ministers, or conversely, by devolving all applications to local authorities.

6. Fourteen respondents expressed a wish to see locational guidance for developments, including better national/local co-ordination in approach to developments, and in particular locational guidelines for designated MOD/natural heritage areas. An additional measure might be the development of a tool to define areas where the resource is high and the constraints are low. Most respondents were content that the current split in the consent process between local authorities and Ministers was correct. A small number of respondents maintained that local authorities should have consent powers for offshore developments in coastal waters.

7. Almost half of the respondents identified as a significant obstacle to development, the lack of spare grid capacity in renewables rich areas, and the need for significant and timely upgrades to both the transmission and distribution systems in order to release this potential. Sixteen respondents believed there should be early identification of a process whereby transmission companies recover the cost of upgrades. Six respondents believed that the Executive should be involved in discussions on any strategic upgrade of the grid, including the formulation of a strategy, and/or a mechanism for investment. The widespread adoption of a “shallow” connection policy could boost new development. The need to establish a clear connection policy could prove crucial in realising a higher target. One organisation called for a moratorium on onshore wind farm developments to allow research into key areas.

**Q: How can significant growth in renewable energy (particularly wind farms) in Scotland be reconciled with other policy interests, such as environmental and aviation interests?**

*Environment*

8. Around 10% of respondents said that there was a need for increased co-ordination between statutory environmental consultees and/or for increased co-ordination between those bodies and the Executive. Some respondents believed that environmental concerns could best be resolved by early dialogue between the Executive and the environmental interests and one suggested that it was for the Executive to reconcile differing views expressed by these interests. A few suggested that an open forum might resolve such environmental tensions.

*MOD/Civil aviation*

9. One quarter of respondents stated that there should be progress on MOD issues in order to allow sufficient renewables development to meet the 40% target. Just over a third of those respondents suggested that the Government and/ or the Executive should play a more active role to assist in this process. Respondents were less concerned about civil aviation issues, suggesting that locational or technical solutions might be developed.

*Public acceptance*

10. Approximately one third of the respondents believed that significant renewables development would create public acceptability issues (particularly if the majority came from onshore wind.) Most of these respondents signalled the necessity for better education amongst the general public both in respect of renewables and/or climate change issues. It was suggested that it might be difficult for the Government to secure support from the general public for renewables if it appeared that the natural heritage was being compromised in any way. Just over an eighth of all respondents commented on visual amenity issues. A similar number believed that more local stakeholder involvement in projects, or community projects, might raise help to raise awareness. Twelve respondents suggested that technologies such as biomass might improve prospects for rural jobs and/ or reconcile several policy interests. Ten respondents were concerned that wind farms might adversely affect the rural environment and industries such as tourism, fishing, and farming. A small number suggested the need to better analyse the social and economic benefits of developing more renewables across Scotland.

**Q: How can the Executive best support and encourage further investment in renewables? What actions might be needed and by whom to promote the rapid development and commercialisation of new forms of renewable technology such as wave and tidal power, biomass and photovoltaic panels?**

*Finance/Enterprise*

11. One third of the respondents commented on the need for Government to subsidise less competitive emerging renewable technologies, such as wave and tidal. Capital grants/loans, feed in tariffs, a differential ROC buyout price, renewable investment certificates, carbon credits, or the underwriting of projects were all suggested. A small number suggested that the Executive work more closely with Scottish Enterprise to properly attract inward investment. Thirteen respondents suggested the need for a co-ordinated enterprise strategy on renewables, spearheaded by developments like the Energy Intermediary Technology Institute, the Marine Energy Test Centre and the Proof of Concept Fund. Six respondents maintained that the Executive should play a more strategic role in rural diversification and economic development (including manufacturing opportunities).

12. Twelve respondents expressed a need to reduce the risk associated with renewables projects; around half of those suggested that there should be increased certainty on the longevity of the ROS and the continuing parity of the RO/ROS Obligations. Almost one fifth of respondents were concerned about the ability of the ROS to encourage emerging renewables technologies, and suggested that there should be an additional obligation over and above to support wave/tidal or biomass, or potentially a banded obligation. Conversely, a small number suggested that support be given only to proven renewables technologies or to the development of low cost options. There was the suggestion that there could be synergies from co-locational development options with development focussing on large pockets of renewable resource in close proximity to demand centres. Four respondents mentioned the need to begin developing a skills strategy on renewables.

*Research and development*

13. One fifth of respondents stressed the need for better research and development initiatives in Scotland (either for emerging renewables technologies or in order to better understand future energy storage and management needs). A few respondents suggested that the Executive might have a greater role to play in co-ordinating this development. Twelve respondents commented on the need for a strategy to develop large demonstration projects that could help to lower the unit cost of new technologies. (A few suggested that the Executive take the lead.) Seven respondents emphasised that Government should provide a route map to commercialisation for emerging technologies, especially marine renewables: there should be an appropriate framework to “pass” projects from one stage to the next. A small number of respondents suggested that the Executive could do more to assist Scottish companies to lever UK or EU funding to develop new technologies.

**Q: What impact will an increased reliance on renewables have on Scotland's electricity network?**

***Grid upgrades***

14. There were strong representations that the cost of grid upgrades required to accommodate a 40% Scottish target should be shared by all UK consumers (17 responses). Some mentioned the need to incentivise local network operators to connect new generation. A few respondents commented on the potential to use a locally available renewables resource (such as biomass) to match local demand in order to negate the need for expensive grid upgrades. Many commented that the development and widespread use of hydrogen fuel cells could be a potential long-term solution.

***Planning and operation***

15. Approximately one third of the respondents suggested that there would be a need for strategic localised grid planning and/or overall network planning, as well as adequate system control, management and balancing in order to reach the target. There were calls for the Executive to fund a study into the effect on network stability if increasing numbers of renewables plant were to be connected. There were suggestions to balance significant quantities of intermittent renewables with a proportionate amount of non-intermittent renewables. There could be synergies from locating new renewables connection at sites where thermal plant was approaching retirement, or by looking at co-locational options for intermittent/non-intermittent renewables. Additionally, respondents commented on the regulatory and technical challenges posed by the changing nature of the grid and the trend towards increased numbers of locally distributed generators. A small number of respondents commented on the need to ensure that the interconnectors as well as the transmission and distribution networks received adequate reinforcement.

***British Electricity and Transmission Arrangements (BETTA)***

16. One-tenth of respondents saw BETTA as an opportunity to deliver suitable regulatory, technical and cost recovery signals and to enhance market opportunities for Scottish generators. However, they emphasised the need for careful management to ensure that the arrangements would not predicate against renewables development. There were suggestions that locational signals should not drive away renewables development from Scotland, and that the transmission and access loss procedure under BETTA might be harmful in this regard. A small number of respondents believed that it was essential that Ofgem properly consider the views of small generators.

## **Additional comments**

17. One fifth of respondents commented on the need to consider targets in the wider context of the response to climate change, including the need for measures on heat and transport for example. Similar numbers also commented on the need for complementary actions on the demand side, especially on energy efficiency, and some suggested that the adoption of energy efficiency targets in Scotland might be an effective measure to reduce emissions. Four respondents commented directly on building regulations. There was the suggestion that amendments to building regulations could provide the necessary framework to increase uptake of energy efficient and renewables technologies in public and private buildings. There should be more momentum to integrate renewables technologies into public buildings for example hospitals, schools or housing stock transfers

18. Both within answers to consultation questions, and in their additional comments, many respondents suggested that the Executive should carefully consider the renewables generation sources likely to contribute to a 40% target. A third of respondents mentioned intermittency/ back up or storage issues associated with an increased level of renewables generation. Many suggested that a spread of renewables technologies (including non-intermittent technologies) could ensure security of supply.

19. Eleven respondents believed that nuclear generation could still have a part to play alongside renewables in a low carbon future. Some respondents thought it would have been more appropriate for the Executive wait for the results of the UK Energy White Paper [24<sup>th</sup> February 2003] before setting targets for renewables. A few respondents suggested that there should be an all-encompassing market driven mechanism for all carbon reduction technology implementation.

20. A few respondents expressed concern that the low wholesale price of electricity would do little to encourage companies to invest in emerging renewables technologies.

## **ANNEX - OVERVIEW OF THE RESPONSES**

### **Business**

Alan McLauchlin  
Alba Resource Recovery  
Alcan  
Bidwells  
British Energy  
British Nuclear Fuels Ltd  
British Wind Energy Association  
Crestport Services Ltd  
Derek Lovejoy Partnership  
Dundas & Wilson  
Geothermal Energy  
Hunter Energy  
London Electricity Group  
Lorenz Pichler Ropatech AG  
Michael Pemberton  
Mitsui Babcock  
Mott MacDonald  
National Grid Company  
National Wind Power  
Ocean Power Delivery  
Proven Engineering Products Ltd  
Regentech  
Renewable Energy Systems  
Robert Marshall Associates  
Scottish & Southern Energy  
Scottish Council for Development & Industry  
ScottishPower  
Shanks  
Shawater  
Shell  
SURRC  
Talisman  
Torren Energy  
UK Business Council for Sustainable Energy  
Wavegen

### **Local Authority**

Aberdeenshire Council  
Comhairle nan Eilean Siar  
Highland Council  
Inverclyde Council  
Orkney Islands Council  
East Renfrewshire Council

## **Public Bodies**

Argyll, the Isles, Loch Lomond, Stirling and Trossachs Tourist Board  
Carbon Trust  
Energy Saving Trust  
EnergyWatch  
Forestry Commission  
Glasgow & Clyde Valley Structure Plan  
Highlands & Islands Enterprise  
Highlands of Scotland Tourist Board  
Ofgem  
Scottish Natural Heritage  
Scottish Environmental Protection Agency

## **NGO**

Association for the Protection of Rural Scotland  
Association of Electricity Producers  
Chartered Institution of Waste  
Electricity Association  
Forestry & Timber Association  
Friends of the Earth  
Greenpeace  
Industrial & Power Association  
Institute of Physics  
Institution of Electrical Engineers  
Keep Galloway Beautiful  
Mountaineering Council of Scotland  
Reforestation Scotland  
Royal Agricultural Society  
Royal Fine Art Commission  
Royal Institution of Chartered Surveyors  
Scottish Academic Response  
Scottish Energy & Environment Foundation  
Scottish Environmental Services Association  
Scottish Landowners Federation  
Scottish Renewables Forum  
Scottish Solar Energy Group  
Scottish Environment Resources Association  
Scottish Universities Environmental Research Council  
Sibley Village Trust  
Socially Responsible Energy Generation & Use, Scotland  
Supporters of Nuclear Energy  
United Kingdom Forest Products Association  
Views of Scotland  
World Wildlife Fund

## **Party**

Scottish Green Party  
Scottish Liberal Democrats

## **Public**

Elizabeth Marshall  
Alan Shaw  
Allan Davenport  
Ben Palmer  
Bob Graham  
Christopher Lambton  
Cliff Beck  
Clive Brown  
David Brain  
Dick Winchester  
Dr Victoria Spencer  
F Tickell Lithgow Estates  
Geoffrey Duxbury  
H Moncrieff  
Isobel Card  
Jock & Ursula Stewart  
John Mayne  
Malcolm Rider  
Michael Baird  
Mike Haseler  
Murray Flutter  
Peter Hodgson  
Robert McLennan  
Roger Oakes  
Stephen Salter  
Terry Jones  
WP Whyte

## **Union**

NFUS  
Unison

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