The Royal Society of Edinburgh Inquiry Committee
Issues for Scotland's Energy Supply

Submission of evidence by the Ramblers' Association Scotland

Overview

We very much welcome this Inquiry by the Royal Society of Edinburgh and hope that it will lead to significant changes in government energy policy, both within Scotland and at the UK level. While we strongly support Government efforts to tackle climate change and security of supply issues through the encouragement of renewable energy developments we believe current policy is going in the wrong direction.

At the centre of our concerns is the excessive reliance on wind energy sources and especially the use of giant turbines in land based schemes combined with transportation of the energy generated from such sources over huge distances. This policy is leading to enormous damage to Scotland's world famous landscapes and needs to be radically changed.

We believe the place for large scale windfarms is well offshore with transmission of the energy generated being by subsea cables to landfalls close to centres of demand. Policy on wind energy generation on land should move almost entirely towards the use of small scale turbines, generating energy for local community or individual building use, with such turbines located on land of low environmental sensitivity.

To achieve such a shift in policy requires major changes to the financial incentives which are driving current developments through the Renewables Obligation. Such changes are also required to give much more impetus to other forms of renewable energy development than onshore large scale windfarm development. We hope this will be the main conclusion from the Society's Inquiry.

Role of Ramblers' Association Scotland

The Ramblers' Association is a voluntary organisation founded in 1935 that has the following broad aims:

- To promote walking
- To protect, open up and develop path networks
- To secure, promote and protect responsible access to the countryside
- To protect the outdoor environment and maintain its long-term health and sustainability.

We have over 140,000 members in the UK as well as the members of affiliated clubs and societies. We cater for all abilities and seek to involve people of all ages, races and creeds in our work. The Association believes that it is the largest single organisation representing walkers in the UK and therefore campaigns to protect the countryside to ensure that it is maintained for all to enjoy.

Policy within Scotland is determined by the Scottish Council Executive Committee which is elected annually at Scottish Council. With regard to energy policy our primary interest lies with the landscape impacts that arise from the use of the different technologies..

As an environmental organisation, we support the promotion of the sustainable use of energy, and in particular, support energy technologies that are not environmentally damaging. However, given the landscape and visual impact of some renewable technologies, we would support a careful and responsible attitude to their development that takes other environmental issues into consideration, as well as carbon abatement. It is with these concerns that we welcome the opportunity to contribute to this inquiry.

Issues of Concern

Many of the questions posed in the RSE consultation document lie beyond our expertise, but we have observed some worrying trends in the development of renewable energy technologies, especially in regard to on-shore wind turbines.

Landscape and visual impact

We believe that the direction being taken by the need to generate more electricity from renewable sources is unacceptable from a landscape perspective. Scotland's landscape resources and scenic quality is among the best in western Europe, bringing large numbers of visitors who help to maintain Scotland's rural communities.

There is now a situation arising whereby large numbers of wind turbine developments are seeking planning consent. Based on the most up-to-date figures available, there are 221 renewable energy development proposals currently within the Scottish planning system, 97% of which are for on-shore wind, with an additional 268 proposals under investigation, 83% of which are for on-shore wind turbines[1].

Due to the way that wind turbines operate, needing steady winds, these developments are mainly being proposed for open, upland landscapes. This will have a substantial impact on the character of the landscape where each windfarm is sited. This impact will not just be confined to the immediate area of development, as tall turbines will often be visible from surrounding areas, up to many miles from the actual site of the windfarm.

The height of modern on-shore wind turbines compounds the problem: on operational windfarms the turbines are around 50m to 70m to the vertical blade tip, whilst on projects under construction 100m to 110m is the norm. Windfarm applications currently being considered under the consents system now regularly propose turbines of 125m, 130m, and even 140m to the blade tip, as is the case with the proposal for the Isle of Lewis for 234 of these wind turbines on the flat Lewis peatlands.

The financial consequences to the tourism industry of this rapid expansion of giant wind turbines are not being addressed in the current debates surrounding renewables. VisitScotland have commissioned surveys which highlight the fact that "the scenery, wild landscapes and unspoilt environment are all regarded as key strengths of the Scottish tourism product amongst visitors to the country."[2]

Energy Use

There is a strong need to change the conceptual framework of the development of alternative energy sources. We need a different strategic view of how wind energy is used, not only in Scotland but in the UK as a whole.

It is clear that the apparent preference for large-scale development of giant turbines is based on the traditional way of generating electricity, whereby electricity is generated, transmitted over large distances, and distributed to consumers.

We need to create a new vision of how we use wind power, in order to maintain the landscape settings so highly valued by both residents and visitors to Scotland. We need a different conceptual framework of how society generates and uses electricity.

Recent wind turbine proposals have created alarm and uncertainty within local communities as to the scale of development. Take, for example, the 4000 letters of objection to the Scottish Executive regarding the 234 turbines proposed for the Lewis peatlands, and the 200 people who turned out on a

[1] Scottish Natural Heritage 2004. Renewables Trends in Scotland: Statistics and Analysis.
[2] VisitScotland, 2002. Investigation into the Potential Impact of Wind Farms on Tourism in Scotland.

Sunday morning in April this year on a protest walk against the 173 turbines proposed in the Abington area in South Lanarkshire.

This level of uncertainty is unsurprising given the way that the planning system has to deal with this unprecedented demand for windfarms. A case in point is the recent decision by the Scottish Executive to extend the 25 turbine development at Crystal Rig in the Lammermuir Hills by a further 52 larger turbines a mere year after the original consent was given.

There is now a strong need to change the direction that wind turbine development is going to become more acceptable to local communities. Turbine height needs to be drastically reduced in height, with more community involvement in development so that small turbine clusters are able to satisfy local electricity demand, reducing the need to draw power from the national grid. This would have the double benefit of saving on consumers' electricity bills after initial capital costs have been paid, and also reduce the need for very expensive expansion and upgrading of the electricity transmission system to transport power to the centres of demand.

If large wind turbine arrays are required to supply power then they should be located well off-shore where their visual impact is diminished.

Policy drivers

This realignment of energy strategy will not happen until the financial instrument which is driving the current expansion is fundamentally changed. The Renewables Obligation rewards the development of large-scale on-shore wind turbine development at the expense of the development of a broad range of other renewable technologies. The current review of the Renewables Obligation is singularly disappointing in that it fails completely to address the adverse consequences of its operation.

Statements in reports from the UK Parliament's Environmental Audit Committee[3], the National Audit Office[4], and the Scottish Parliament's Enterprise and Culture Committee[5], have raised questions over the operation of this Obligation; they are critical of a policy that leads to an over-dependence on one type of generation.

The Renewables Obligation requires a radical review, aligned to a more sustainable vision of how we generate and use power. Financial incentives need to be changed to take account of the different properties of renewable technologies and to reward development which leads to reduced demand from the national grid.

The Ramblers Association urge the Royal Society of Edinburgh to be bold in fashioning a vision for a new energy future, one which is truly sustainable, one which cherishes the landscapes within which we live while supplying low-carbon power for our needs. This is what is required to inspire developing countries to reduce carbon emissions. If we fail to act now to create that conceptual framework then our monument would be a landscape littered giant wind turbines.

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[3] UK Parliament Environmental Audit Committee, 5th Report of Session 2001-02; 8th Report of Session 2002-03; 7th Report of Session 2004-05.
[4] National Audit Office, 2005. Department of Trade and Industry: Renewable Energy.
[5] Scottish Parliament Enterprise and Culture Committee, 2004. Renewable Energy in Scotland.