

**SCOTTISH  
NATURAL  
HERITAGE**



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Scottish Executive Energy Efficiency Unit  
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Tuesday, 22 May 2007

Dear Sir,

**Scottish Executive Consultation on Energy Efficiency and  
Microgeneration, Achieving a Low Carbon Future – A Strategy for  
Scotland**

Scottish Natural Heritage (SNH) welcomes this opportunity to comment on the Scottish Executive's consultation 'Energy Efficiency and Microgeneration, achieving a low carbon future. A Strategy for Scotland'.

Our views in relation to energy policy are described in our Policy Statement "Energy and the Natural Heritage" (06/02, 2006), which is available on our website (<http://www.snh.org.uk/pdfs/polstat/EnergyPolStat.pdf>). We view climate change as the most serious threat to Scotland's natural heritage in the coming decades and therefore welcome a strategy which seeks to deliver further carbon savings. We consider that energy issues should be tackled in the following order of priority:

- i) measures to encourage reduction in the overall use of energy, aimed at securing reducing demand rather than continued growth;
- ii) continued expansion in the proportion of energy generated from renewable sources, but subject to a strategic approach which minimises adverse impacts on the natural heritage;
- iii) a commitment to reduce emissions and other environmental problems associated with non-renewable electricity generation, either through the application of carbon capture and storage technologies to fossil fuel generation, or through continued

generation by nuclear power. Preferences should depend on the long-term security of carbon capture technology and on the success of the current review of options for the long-term management of radioactive wastes.

(Energy and the Natural Heritage, SNH 2006, para 128)

In the annex to this response, we have answered the series of questions posed in the consultation. We are content for the Scottish Executive to make this response public. Please feel free to contact our Policy and Advice Officer Brendan Turvey ([brendan.turvey@snh.gov.uk](mailto:brendan.turvey@snh.gov.uk)) on 01738 458 624 if you would like to discuss the above response further.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Jane Clark', written in a cursive style.

Jane Clark  
Head of Sustainable Land Use

## **Questions presented in the consultation**

### **1. Do you agree with the overall approach taken in this draft strategy for improving energy efficiency and encouraging greater uptake of microgeneration? If not, why not?**

Yes, we welcome the focus on energy efficiency and the measures described within the consultation strategy. In recent years attention has been focused on targets for renewable energy, which, though highly successful in stimulating renewables activity at the large, commercial scale, has distracted due attention from the need to minimise demand. We consider that this strategy will go some way towards restoring that balance and ensuring that energy efficiency takes top priority.

However, in line with the priorities we identified in our Energy and the Natural Heritage policy described above, SNH would welcome further reference in the final strategy to wider measures to reduce demand. Whilst the draft strategy addresses a number of important issues where energy efficiency measures will become mandatory (e.g. improvements to building standards, or the introduction of Energy Performance Certificates for buildings), the document contains few proposals to influence consumer behaviour, which offer very substantial opportunities to reduce overall demand for energy. Whilst some reference is made to the provision of advice (both to businesses and domestic consumers) and some measures to influence behaviour (e.g. It's Our Future and the Energy Saving Trust's Save your 20% Campaign), we believe that more action is required to encourage people to make small, but significant changes in their everyday lives.

### **2. Do you have any views on the key actions covered in the draft strategy summarised in Chapter 8 - Conclusions and Next Steps?**

We welcome the commitment to produce an Action Plan with specific targets on energy efficiency and microgeneration.

We welcome the intention to consult on detailed proposals for permitted development rights for microgeneration (page 69) and refer to this below. While small-scale microgeneration is less likely to have significant impacts on the natural heritage, we consider that development towards the upper end of the proposed definition of microgeneration (up to 50kWe) could have significant impacts depending on location and design, and hence a proportionate level of environmental information is likely to be necessary.

### **3. The draft Strategy states that we will consider targets to be included in the final Strategy and Action Plan:**

#### **a) Do you have any views on specific targets referred to within the draft?**

We have no comment on the 20% domestic energy efficiency target identified in 2002. However, in light of experience with renewable energy targets (which, due to a rapid response from industry, are likely to be met early), we suggest that any new target is considered flexible – allowing revision upwards

if sufficient progress has been made year on year. We also welcome the proposal for wider energy efficiency targets (such as specific targets for the public sector), as identified in the strategy.

We would welcome further clarification of how this will contribute towards the proposed EU 20% energy efficiency target for 2020 and we would support an overall target for demand reduction, particularly in relation to electricity. We note that the current draft strategy does not propose an overall target for demand reduction. Based on our existing policy priorities (referred to above), we would encourage the Executive to consider adopting such a target. We believe the adoption of such a target would help to focus attention on wider energy efficiency objectives and drive greater action amongst the business, domestic and energy utility sectors.

We note the intention to develop a microgeneration target. We would welcome a target which differentiates between technologies, encouraging activity and uptake across the range of technologies available. We would also welcome a target which quantifies the anticipated contribution that the technologies installed will make to the reduction of carbon emissions.

**b) Are there any other targets which you believe should be considered?**

We have no comments this issue.

**4. Are there any other comments you would like to offer on this strategy in relation to the promotion of energy efficiency and microgeneration in Scotland?**

SNH has the following additional comments.

- Whilst we are content with the definitions of microgeneration (as described in the box on page 19) – it is important that these do not set the thresholds which determine whether development requires planning permission or not. A 50kw wind turbine, for example, could lead to significant impacts on the natural heritage (depending on location) and would require an entirely different level of assessment to a small 1kw roof top mounted wind turbine. We note and welcome that a further consultation on the issue of permitted development rights is proposed (section 5.7).
- We would welcome further discussion on the level of environmental information appropriate for microgeneration projects which require planning permission but which do not require EIA. SNH is currently preparing to develop advice on appropriate forms of information on impacts on the natural heritage to be provided for small-scale renewables projects below EIA thresholds.
- In particular, we recommend that the Executive give further consideration be given to the potential for impacts resulting from

increased activity within roof spaces on bats and on the potential for further impacts from increased deployment of small scale hydro schemes on freshwater ecology. We note from the Strategic Environmental Assessment Environmental Report that the provision of further guidance by the Scottish Executive is proposed – we would welcome dialogue in this process.

- In addition, and whilst acknowledging that smaller wind turbines (due to their scale) represent a lower risk to birds, SNH recommends that any guidance provided to installers of micro wind turbines or Local Planning Authorities should refer to the need, where practical, to a) avoid areas near to sensitive bird populations (where a suitable assessment of impact would be required, especially if near to or in a designated site or close to high densities of waterfowl) and b) locate free standing micro turbines as close to existing dwellings, buildings and other infrastructure as practical to avoid any increase in the likelihood of bird collision and to help minimise visual impact.
- We would expect energy savings through energy efficiency to translate into lower projections for electricity consumed in Scotland. We recommend that this Strategy should be clear as to its expected effect on electricity consumption in Scotland, e.g. whether, if the Strategy is delivered, the expectation is of reduced consumption or zero growth. In particular, it would be helpful if this Strategy were to indicate what the projected electricity demand in 2020 might be if this Strategy is successfully implemented. This could then be used as the basis for a revised projection of the amount of renewable energy installed capacity needed to meet the 40% target by 2020.
- Energy losses in transmission and distribution of electricity are an important form of energy inefficiency. We recommend that work should in due course be undertaken to review opportunities for greater efficiency in electricity transmission and distribution (for example, making increased use of distributed generation, or using High Voltage Direct Current). We also recommend that further work on improving the efficiency of current and new electricity generation plant is required. We note, for example, that the current biomass development at Stephens Croft does not propose to utilise waste heat from the process – substantially reducing the overall efficiency of the plant.
- We welcome proposals for the development of a renewable heat strategy and supports continued diversification of support for broader renewable energy technologies.
- Longer term opportunities for linking microgeneration with transport (e.g. through the use of electric vehicles or fuel cell vehicles) are not covered by the strategy. The example of the PURE project on

Unst ([http://www.pure.shetland.co.uk/html/pure\\_project.html](http://www.pure.shetland.co.uk/html/pure_project.html)) demonstrates that microgeneration and transport can offer valuable synergy. We would welcome proposals to address and support the longer term role of and opportunities arising from microgeneration.

**5. If you are responding on behalf of an organisation, how do you think your organisation will/can contribute to the success of the strategy?**

SNH has made significant progress on improving our own energy efficiency. Our progress to date is described in the Scottish Climate Change Programme document, Changing our Ways.

SNH has had a programme of action to reduce our own environmental impact since 1997, and our Environmental Management System is well regarded within the public sector. Following a review of its effectiveness and to deliver our share of the Sustainable Development Strategy, Climate Change Programme and other strategies, SNH has adopted a new Environmental Management Programme, to run from April 2007.

This programme has three corporate aims – to manage our resource use more sustainably, to reduce our CO<sub>2</sub> emissions, and to make our corporate processes more sustainable.

Energy Use Reduction (with targets for all SNH properties) and installation of on-site Renewable Energy (where appropriate and beneficial) are key corporate outcomes of these aims. Whilst wanting to increase the onsite microgeneration at SNH properties, we would be concerned if there was to be a presumption that all properties and buildings would have onsite microgeneration. Once all possible energy efficiency gains have been made, we give careful consideration of the scale and patterns and uses of energy, alongside the local constraints (e.g. where we do not own a building, where there is insufficient wind/sunlight, where there is no ground to install heatpumps etc) so that investment in microgeneration brings real carbon and energy-savings and not just presentational benefits.

SNH has already installed, or has under construction, microgeneration at 9 of our 42 properties, comprising wind turbines, micro hydro, ground source heatpumps, solar PV, solar water heating and biomass heating. More are possible, but many of our properties will not be suitable for individual on-site microgeneration.

More information on SNH's Environmental Management Programme and annual performance reports are available on our website, <http://www.snh.org.uk/about/greening/ab-gr-01.asp>.