



## RENEWABLE ENERGY TASK GROUP

### REPORT

#### 1 Context

- 1.1 Due to abundant wind and water resources, the uplands in Scotland offer a significant potential for renewable energy generation<sup>1</sup>. However, whilst the Moorland Forum recognises the benefits of renewable energy, it is concerned with threats to moorland posed by the impacts of large scale developments.
- 1.2 The lack of a strategic energy framework<sup>2</sup>, combined with strong economic incentives, has resulted in uncoordinated development in the uplands without due regard for sensitive moorland habitats and ecosystems. Wind energy developments (built, approved or planned) now cover at least 41,000 ha of heather moorland in Scotland. As more sites for renewable energy development are sought the risks to moorland are likely to increase<sup>3</sup>.

#### 2 Potential benefits

- 2.1 While the main benefit of renewable energy generation is climate change mitigation through reduced carbon emissions, other potential benefits in a moorland context are:
  - 2.1.1 Income generation and employment opportunities from renewable energy projects, especially small scale schemes, which can support fragile rural economies,
  - 2.1.2 Habitat improvements within the immediate footprint of the development as mitigation for adverse impacts,
  - 2.1.3 Increased water retention and reduced flood risk from impounded (reservoir) hydroelectric schemes.

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<sup>1</sup> Wind and hydro power are the most important sources of renewable energy in upland areas. Biomass from commercial forestry can also be considered, but to a much lesser extent.

<sup>2</sup> Such as Northern Ireland Strategic Energy Framework 2009 pre-consultation scoping paper:  
<http://www.detini.gov.uk/cgi-bin/moreutil?utilid=1131&site=5&util=4&fold=&parent=>

<sup>3</sup> Including not just areas of good quality moorland but also areas with the potential for moorland restoration.

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### **3 Negative Impacts**

- 3.1 In a moorland context, there are potentially major negative impacts arising from renewable energy developments in the uplands, particularly industrial scale projects and associated electricity transmission grid infrastructure:
- 3.1.1 The infrastructure associated with developments (access roads, drainage channels, concrete foundations, etc.) results in impacts on biodiversity and ecosystems:
- direct and indirect loss of habitat,
  - habitat fragmentation,
  - mortality or displacement of sensitive species,
  - loss of peat resulting in carbon emissions to atmosphere – from direct removal through to exposure and drying out of peat soils,
  - changes to watercourses through sedimentation, turbidity and pH directly and indirectly affecting aquatic life (especially salmon and their spawning redds),
- 3.1.2 Visual landscape impacts individually and cumulatively reduce enjoyment of moorlands.

### **4 Mitigation**

- 4.1 Where renewable energy developments are located on moorland, the Moorland Forum would like to see improved mitigation to counteract potentially negative impacts:
- 4.1.1 Adherence to locational guidance in relation to siting developments (<http://www.snh.org.uk/strategy/pd02b.asp>)
- 4.1.2 Adherence to best practice in relation to design of renewable energy projects and associated infrastructure (such as floating roads<sup>4</sup>) and including a full cost analysis of lifetime carbon benefits,
- 4.1.3 Full compliance with planning consent conditions including habitat restoration.

### **5 Recommendations**

- 5.1 In order to maximise the positive benefits and minimise the negative impacts of renewable energy generation in the uplands, the Moorland Forum would like to see:
- 5.1.1 The production of a Scottish Renewable Energy Strategy to allow developers to make informed decisions about where to locate renewable energy projects, what type of renewable and what scale of project is suitable (in relation to economics, biodiversity, landscape, sensitive habitats, carbon, sustainable rural economies etc.),

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<sup>4</sup> A 'Sharing Good Practice' event was held at Battleby on 7 May 2009

- 5.1.2 Integration of a strategic framework with improved early dialogue at a local level between developers, landowners and planning authorities to ensure that capacity for an area is ascertained and that there is minimum impact on the landscape, taking into account cumulative impacts,
- 5.1.3 Planning authorities ensure that any proposal given planning permission on or near moorland include greater areas of moorland delivered into positive carbon management (as part of planning gain)
- 5.1.4 Better enforcement of regulations regarding planning conditions and mitigation measures.
- 5.1.5 An independent review and recommendations for the economic model that drives current renewable developments in the uplands, including:
  - Cost effectiveness of energy saving measures (energy reduction, insulation) compared to production of new renewable energy sources,
  - Full appraisal of carbon pay back times of small scale local and industrial scale renewable energy schemes,
  - Cost effectiveness of Renewable Obligation Contracts and grid infrastructure,
  - Effectiveness of incentives (including SRDP) for small scale local schemes

## **6 Task Group Members**

### **Full members**

Mike Daniels ( Chairman)	John Muir Trust
Andrew Coupar	Scottish Natural Heritage
Lisa Duggan	Loch Lomond & The Trossachs NPA
Janice Cassidy	Scottish Rural Property & Business Association
Alex Jameson	Royal Institute of Chartered Surveyors (Scotland)

### **Corresponding members**

Robert Balfour	Association of Deer Management Groups
David Greer	Scottish Estates Business Group
Malcolm Hay	The Heather Trust
Richard Luxmoore	National Trust for Scotland
Ian McCall	Game & Wildlife Conservation Trust
Fiona Strachan	Highlands Birchwoods
Allan Watt	Centre for Ecology & Hydrology