# BEAULY TO DENNY TRANSMISSION LINE PUBLIC INQUIRY

### PRE-COGNITION ROGER CROFTS

# **Basis of case**

- 1. There is no clear policy justification for the proposed transmission line on the following grounds. First, there is a lack of coherence in UK and Scottish Government policies and strategies for the use of renewable sources of energy. Second, there is no strategy on how the government's renewables targets for electricity are to be achieved. Third, there is no clearly articulated strategic locational policy for the development of renewables sufficient to justify the need for the proposed transmission line. Fourth, no Strategic Environmental Assessment has been undertaken of onshore wind generation and associated transmission infrastructure policy. Fifth, the planning of renewables infrastructure has been undertaken in an ad hoc fashion and the strategic needs have not been adequately assessed.
- 2. In addition, the development of onshore wind turbine installations at locations remote to the sources of consumption and their transmission over long distances is not as sustainable, environmentally and socially, as exploitation of sources close to the points of consumption.

# (1) Lack of coherent policy

- 3. UK Government energy policy is set out in the DTI Energy White Paper "Our Energy Future creating a low carbon economy", 2003 and the report of the Energy Review in 2006. These documents, inter alia, only identify high level targets for the reduction in greenhouse gas emissions., and do not identify the precise means of achieving the targets, or the relative contribution of renewable technologies to meeting the future demand for electricity, or the specific contribution which onshore wind generation could make. Also there is no precise locational justification for transmission systems specified.
- 4. There have been many statements by the Scottish Executive on renewables, most important is "Securing a Renewable Energy Future: Scotland's Renewable Energy" together with a Ministerial commitment on the contribution of renewable energy to meeting electricity demand. However, there has been no specification of aims and objectives of energy policy for Scotland to provide a coherent and unambiguous framework for decision-making (see RSE Energy Summary Report, pages 5-7).

# (2) Lack of strategy on how renewables targets are to be achieved

- 5. The First Minister in March 2002 made a commitment that 40% of electricity in Scotland should be provided from renewable sources by 2020. This aspirational statement lacks any specification on how it can be achieved.
- 6. An interpretation has been provided by the Forum for Renewable Energy Development in Scotland (FREDS) "Scotland's Renewable Energy potential:

realising the 2020 Target" published in June 2005 as follows: "The current 40% target should be redefined to provide a MW target based on electricity demand. This equates to installed renewables capacity of around 6 GW. This must not be regarded as a cap......Capacity should not be reserved nor targets set for any renewable technologies, such as offshore wind, biomass and wave & tidal." The RSE Summary Report (pages 14-15) questions this interpretation from the perspective of the overriding Government policy objective of reducing greenhouse gas emissions. Advice from the University of Edinburgh to the Scottish Executive "Matching Renewable Electricity Generation with Demand", released in February 2006, indicated (Section 7) that renewables can in principle supply 40% of the required electricity in Scotland on average annually, but this supply would be intermittent and would reach the 40% target or more for only 40% of the time. The sources of supply, according to the report, would be from a variety of renewables technologies and from a variety of locations, not just from onshore wind turbines.

- 7. There remains no clear guidance from government on the technologies to be used, the relative mix of technologies, and their likely locations. It is therefore impossible to draw a conclusion that a certain level of electricity generation should be from onshore wind turbine installations and that they require specific transmission infrastructure.
- 8. There remains a lacuna in government policy on how the renewables target can be used to justify specific technologies, especially onshore wind, and the specific infrastructure required to bring the electricity generated to the consumer. A strategic approach would resolve this but has not been used.

# (3) Lack of strategic locational guidance on the development of onshore wind turbine installations

Government strategic guidance for major developments that fall within the statutory planning system in Scotland has been in existence since the 1970s. It was developed for dealing with applications for onshore infrastructure for North Sea oil and gas. It is surprising that no such advice has been provided to guide decision making on onshore wind turbine installations. This has been to left to planning authorities to follow at their own discretion. The National Planning Policy Guideline 6 on Renewable Energy Developments merely invited local planning authorities to "define search areas suitable for wind and other renewable energy developments or, where appropriate, specific sites in local plans; safeguard, where appropriate, areas for renewable energy projects; indicate areas or sites where, for environmental reasons, proposals for renewable energy development would only be considered acceptable in exceptional circumstances". In the consultation draft of the Scottish Executive Scottish Planning Policy Guideline 6 on Renewables there is a proposal that planning authorities prepare locational guidance: "identify broad areas of search for onshore wind farms where projects will be supported subject to specific proposals satisfactorily addressing all other material considerations", but no timescale is given, nor how differences in approach between authorities will be resolved.

- 10. Many organisations, most notably Scottish Natural Heritage, have argued the need for a national locational strategy for onshore wind turbine location in order to provide a systematic approach to location, to reduce speculative applications, and to speed up the decision-making process for the benefit of all parties. The Scottish Executive has consistently refused to undertake or to commission such a nation strategy. As a result applications for onshore wind turbine installations number many hundreds with many of them being speculative and dependant for commercial success on the continuation of the subsidy under the Renewables Obligations Certificates system. This reinforces the argument that the present application is premature.
- 10. The general case for these strategic approaches has been made by this witness in a report on "Learning Lessons from Large-Scale Developments" for WWF Scotland in 2004. A strategic framework would provide clear guidance on probable, possible and unlikely locations for onshore wind turbine installations on a base similar to the Indicative Forestry Strategies produced as a result of an SDD Circular in 1989. It could be in the overall best interests of achieving low carbon emission energy targets to locate renewable sources of energy nearer to the consumer and also nearer to the existing national electricity grid. Without this strategic assessment and the locational framework which would be produced from it, it is premature to make applications for the transmission infrastructure required to potentially link these possible wind farms to the national electricity grid.

# (4) Failure to undertake a Strategic Environmental Assessment of renewable energy policy

- 11. EC Directive 2001/42/EEC on Strategic Environmental Assessment has been transposed into Scottish legislation initially through the Environmental Assessment of Plans and Programmes (Scotland) Regulations 2004 (which were applicable at the time of the application for the Beauly to Denny transmission line) and now through the Environmental Assessment (Scotland) Act 2005 which came into force in February 2006. These require strategic assessments of the environmental effects of proposed plans and programmes for development prior to approval being given.
- 12. The scale and distribution over wide areas of the transmission system being applied for, others for which permissions might be sought particularly to the north and west of Beauly, and the wind turbine installations which will feed electricity into it are prime cases for the application of SEA. I note that in a letter of 22 December 2006 to Urquhart, the Scottish Executive Inquiry Reporters Unit states that an SEA is unnecessary for the transmission line as it is being developed by private companies not a public authority. This view seems to call into question what programmes and plans the SEA procedures should be applied to. Presumably, as the overall programme of onshore wind energy is driven by public policy and subject to approval through statutory mechanisms under the Town and Country Planning and Electricity Acts, including transmission lines, this policy and its component programmes should have been subject to SEA. This is a critical issue which will have to be addressed before final decisions on the transmission line application can be taken by Ministers.

# (5) Piecemeal planning of transmission infrastructure

The DTI has undertaken assessments of the need for upgrading the energy infrastructure for renewables generation (see for example "Energy infrastructure upgrades for new renewables generation"). This is a necessary first step. The Scottish Executive's National Planning Framework, 2004 states at Paragraph 139 that 'Key improvements to the electricity transmission system to facilitate the development of Scotland's renewable energy resources are the rebuilding of the grid spin between Denny and Beauly....". No justification is presented to support this bold statement, but it could imply that the Scottish Executive had already made its decision in favour of the Beauly/Denny line prior to the current PLI. There is no evidence of an overall assessment of the transmission requirements to support the electricity generation from renewable sources discussed earlier. Nor is there, for example, evidence of formal strategic consideration of the transmission requirements for linking generation at points north and west of Beauly into the national electricity grid, for instance from proposed wind turbine installations on Shetland, Orkney, Lewis and Skye. As a result, the application for the rebuilding/upgrading of the current transmission line between Beauly and Denny is premature.

# (6) The proposals do not meet sustainable development criteria

- 14. The UK Government and the devolved administrations have agreed the principles of sustainable development following the global agreements at the United Nations Conference on Environment and Development in Rio in 1992 and at the World Summit on Sustainable Development in Johannesburg in 2002. Specifically "we want to live within environmental limits and achieve a just society, and we will do so by means of sustainable economy, good governance, and sound science" UK Government web site on sustainable development). However, their interpretation has frequently been unbalanced by assuming that a sustainable economy is an end itself rather than the means towards the environmental and social goals.
- 15. A widely accepted interpretation, which supports the government's (see Crofts, and Crofts & Henton), is that sustainable development means the achievement of environmentally sustainable and socially beneficial development that entails the wise use of the Earth's natural resources for the benefit of present and future generations. It is not meant to restrict the use of resources only to those that are naturally renewable but seeks the depletion of non-renewable resources at a pace and timescale which allows new sources to be identified and technologies developed for their sustainable use. However, renewable energy sources are merely a means to achieving the goal of meeting environmental targets rather than being an end in themselves.
- 16. Energy is an essential ingredient of human life and planning for its creation using natural resources has to take place. With the greater understanding achieved in recent years of the contribution that emissions from the use of hydrocarbons have made to global climate change, then it is necessary that alternative low greenhouse sources are utilised. Renewable sources of energy

are an important component and Scotland is well endowed with a number of these sources: waves, tides, onshore and offshore wind. The greatest intensity of these sources is generally remote from the sources of consumption in the Central Belt of Scotland and in the main consumption areas of central and southern England. Hence, if these sources are to be used then it is argued by developers that new transmission lines are required. However, from the perspective of lessening the environmental footprint of new energy sources, the carbon and other greenhouse gases and the raw materials used in their construction and linkage to the consumption sources has to be taken into account if the full environmental and social costs of development are to be accounted for.

- 17. Prima facie developing renewable sources of energy for electricity generation remote from the sources of consumption will have a greater environmental footprint than if they were exploited near to the points of consumption. The application of the principles of sustainable development do not justify the construction of wind turbine installations in locations remote from the sources of consumption and also do not justify the transmission of electricity over long distances.
- 18. As reduction of greenhouse gas emissions is the key target of government energy policy, and is in accordance with its sustainable development policy, then the development of renewable energy resources to meet rising demands of energy fails the sustainable development test. Reduction in energy consumption is essential.

### Conclusion

- 19. The application is premature in two respects: there is no coherent connected policy linking supply of energy from low carbon sources to the justification for one piece of the electricity transmission infrastructure, and there is no strategic assessment of the location and size of the transmission infrastructure required in Scotland.
- 20. The application and the electricity generation infrastructure which will feed into it also fail standard sustainable development tests.

# **Qualifications and Experience**

# Professor Roger Crofts, CBE, FRSE, FRSGS, FRGS, Hon DSc, BA, MLitt, Cert Ed

Following formal retirement in 2002, I am an environmental and management advisor, specialising on strategy and policy on the use of natural resources. Current activity in Scotland on energy is a follow up to the Royal Society of Edinburgh report on Energy Issues for Scotland where I was Secretary to the Committee of Inquiry. I also advice Icelandic government departments, agencies and NGOs on environmental management and the implications of renewable energy programmes. I trained as a geographer and undertook geomorphological research principally around the coasts and in the uplands of Scotland. I worked in The Scottish Office from 1974 to 1991: a member of the North Sea Oil Support Group1974-1981, responsible for policy on the Highland & Islands and on tourism 1984-88, and for rural and conservation policy 1988-91. I was founder Chief Executive of Scottish Natural Heritage 1992-2002. I am

a Council member and non-executive Director of The National Trust for Scotland and Convenor of its Conservation Committee, Chairman designate of Plantlife International, Chairman of the Sibthorp Trust, Chairman of the European Region of the World Commission on Protected Areas, and a non-executive Director of the Scottish Agricultural College. Awarded a CBE, Hon DSc from St Andrews University, and Fellowships of the Royal Society of Edinburgh, the Royal Scottish Geographical Society and the Royal Geographical Society in recognition of services to the environment.

#### **Additional sources**

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