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Renewables go north

By Walt Patterson

When you think of renewable energy, you may not think first of Scotland. Maybe you should. Scotland could be a microcosm of everything on the renewables agenda, plus and minus. It has the resources, the skills and the opportunities, copious and diverse. It also has the mismatches, the obstacles and the inertia, stubborn and frustrating. Scotland can make many of its own decisions. Others, however, will be made for it, willy-nilly. As Scottish renewables go, so may renewables everywhere.

The circumstances came together vividly at a 'Renewables Master Class' in Inverness at the end of May, organized by Highlands & Islands Enterprise (HIE). To a southerner like your correspondent the day's proceedings were both a revelation and a reproach – a revelation because so much is happening up north, and a reproach because I for one knew almost nothing about it. HIE, <www.hie.co.uk>, is a government-sponsored development agency with a vigorous programme promoting and supporting an impressive range of decentralized energy activities in the Highlands, the Western Isles, Orkney and Shetland. It is by no means alone. The Master Class brought together a remarkable roster of organizations, both national and local, keen to expand Scotland's role in renewables.

I should not have been surprised. Scotland has a long history of decentralized renewable energy, including not only biomass heating but also electricity from small wind generators and microhydro. From the 1940s onwards, however, the vision of Tom Johnson and the Hydro-Electric Board, generously subsidized by taxpayers, expanded electricity networks throughout much of the Highlands and Islands, including some seriously inhospitable terrain. The 1950s and 1960s saw the addition of much larger power stations, coal-fired, oil-fired and nuclear, almost all farther south, delivering electricity northwards.

Now, however, a startling reversal is getting under way. The wind resource in the northern UK may be the richest in Europe. The latest plans for new generation in the Highlands and Islands include a rapidly lengthening list of wind farms, onshore and offshore, most of whose output is intended to supply electricity users in the south, not only in Scotland but also south of the border, hundreds of kilometers away. Needless to say the plans are controversial. Siting a major wind farm onshore usually attracts opposition; so does the requisite transmission line. The Inverness Master Class included vigorous discussions between proponents and opponents of such developments. The discussion, sometimes heated and thus far inevitably unresolved, was nevertheless substantive and sharply well-informed on all sides – by no means always the case in such debates. It illustrated both the intensity of feeling and the high level of competence among renewable energy people in the Highlands and Islands.

Electricity for export, especially from wind, took up much of the formal agenda, understandably so since it could be a major factor in fulfilling the renewable energy objectives and climate commitments of the UK government, and a boost to the economy of the north. Lead speakers came from the Scottish Renewables Forum, <www.scottishrenewables.com>, which now has 140 member companies and organizations; Scottish and Southern Electricity and National Grid Transco, responsible for the transmission network in the north; the Office of Gas and Electricity Markets (OFGEM); and the consulting engineers Garrad Hassan, as well as your correspondent. Most speakers focused on larger-scale development of wind and its ancillaries. But other small-scale and renewable resource activities, notably local developments for local services, were very much in

evidence in the coffee breaks and corridors.

The Scottish Community and Householders Renewables Initiative (SCHRI) set up by the Scottish Executive in December 2002 provides grants and expert advice on small scale renewable projects. In the Highlands and Islands SCHRI has enabled the Community Energy Company at Highlands & Islands Enterprise to fund projects of an extremely varied range and size since 2002. The day before the Inverness Master Class the *Glasgow Herald* published a feature story describing the upsurge of small-scale decentralized and renewable energy in Scotland, an impressive catalogue of projects using biomass heating, wind, solar, hydro, biofuel, combined heat and power and heat pumps, in schools, businesses, ferry terminals, care homes and residences, particularly in the Highlands and Islands.

One striking feature of the Master Class was the representation of local government and regional development agencies; indeed the initiative for the Class came from Drew Ratter of Shetland Islands Council. Participants compared problems and opportunities for finances, technologies, planning and management, and swapped ideas and contacts. No one appeared to be expecting London, or even Edinburgh, to take the lead. In the Highlands and Islands local initiatives are already making the running, and mutual support seems to be flourishing. Some policy dimensions nevertheless continue to depend on central government. The Renewables Obligation, in its Scottish manifestation, remains a significant factor in the economic status even of wind, to say nothing of less mature technologies such as marine turbines and wave generators. Planning controversies sometimes ramify all the way to London. BETTA, the British Electricity Trading and Transmission Arrangements, integrates both the network and the electricity market over England, Wales and Scotland. Technical protocols, too, are still emerging from national and indeed international negotiations.

Even so, Scotland, especially the Highlands and Islands, could well stand almost as a comparatively compact yet comprehensive pilot project for future evolution of energy systems, not only in the UK but worldwide. Its mix of resources; its terrain; its demography both urban and rural; its long experience and existing systems, both large-scale and small, both centralized and decentralized; its wide variety of promising options; and above all its growing band of knowledgeable, capable enthusiasts represent a burgeoning opportunity for exhilarating innovation. Highlanders and Islanders may soon be able to give the world a renewable-energy master class.

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