

# THE SCOTTISH COMMUNITY & HOUSEHOLDER RENEWABLES INITIATIVE:

## Case Study 1: Höfn Youth Centre



### Introduction

This case study provides an insight into the development of a community based renewable energy project on the island of Westray in Orkney, completed in March 2003. This was the first wind turbine in Scotland to be installed with help from the Scottish Executive and a Scottish Community and Householder Renewables Initiative (S.C.H.R.I.) grant implemented by Highlands and Islands Enterprise Community Energy Unit for Orkney and Shetland. The Höfn Youth Centre is an award winning building used by the island's community. It is primarily a "drop-in" centre for, and managed by, the young people of Westray.

### Targets & Aims

- To provide heating using sustainable energy and to reduce annual energy costs.
  - To develop the islands natural resources by making use of the near constant winds, and to work towards being a 100% renewable energy island.
  - To demonstrate renewable energy technology and increase awareness of environmental issues.
  - To utilise local expertise and labour in managing and maintaining the project.
  - To promote a sense of ownership and greater self-reliance.
- These ideals are clearly defined in the Westray Trust's Development Plan for the island. "To develop the economic, social and cultural sustainability of our community by harnessing the quality of our resources, people and island environment".

### Involvement

The project was first conceived by The Westray Development plan to "Define the vision of the future of the island". Proven Engineering of Kilmarnock, Scotland supplied the 2.5kW turbine which was erected by Bryan J. Rendall (Electrical) Ltd with foundations laid by island contractors.

### Funding

The community driven Westray Development Trust secured a grant of 90% towards the £14,180 (including VAT) total cost, 42% of this was granted by S.C.H.R.I.; another 42% was secured from Leader+, the remainder was made-up by The Westray Development Trust and Social Inclusion Partnership.

### Implementation

Following a feasibility study, funding and grant assistance were secured for the project. Proven Engineering's 2.5kW turbine was chosen with its gearbox-less design and innovative flexing blades. The 3.5m diameter 3 bladed turbine runs quietly atop an 11m tilting tower, and fits into the available space alongside the building. Simple to install, it was erected in just one day, and is easy and cheap to maintain, with an annual envisaged cost of £200. The site averages a wind speed of 7.5m/s and the turbine will produce up to 9300kWh per annum. This should provide 70% of the average annual heating requirement into 5 storage heaters. It is anticipated that the output of the turbine will typically follow the heating demand of the Höfn Centre. When the output of the turbine is low, the grid supply with automatically provide back-up heat.

### Funding for my community

First step – contact your local S.C.H.R.I. Development Officer or visit [www.est.org.uk/schri](http://www.est.org.uk/schri) Community Energy Unit (Orkney and Shetland) Colin Risbridger t: (01856) 888717 e: [colin.risbridger@hient.co.uk](mailto:colin.risbridger@hient.co.uk)

### Funding for my home

To request information guidelines and an application form t: 0800 138 8858 or visit [www.est.org.uk/schri/household](http://www.est.org.uk/schri/household)

For further information about this project contact:

**Bryan J. Rendall (Electrical) Ltd**

Bryan Rendall t: (01865) 879086 e: [bryan@bjre.co.uk](mailto:bryan@bjre.co.uk)

**Westray Development Officer**

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MSP Jim Wallace and MP Alistair Carmichael visit the Höfn Centre

