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Co-operative Wind Farm Schemes in Scotland

The following paper is in response to a request from the Environment Committee for information on co-operative wind farm projects in Scotland.

Introduction

As explained in more detail in paper (NIAR-308-2014) 'Wind Farm Community Benefits', there are four types of community benefit: community funds; benefit in kind; local supply; and co-operative schemes. Co-operative schemes are where there is local ownership of the development (or part) by local people or community based organisations. This is usually achieved by offering shares for sale, joint venture or majority ownership by a community-based enterprise.

The amount of direct financial benefit a host community receives from a renewable energy development can have major implications on planning proposals; where a community may experience direct financial benefits from a site then opposition is likely to be less. Direct financial gains are often obtained if the community owns, co-owns or has some form of financial stake in the development.

The following paper describes examples of co-operative wind farms in Scotland. Where the information is available it considers the size of the wind farms, location, their success/projected success in terms of capacity and how they are funded.

The majority of examples are owned by Falck Renewables Wind Limited¹ (a European wide renewable energies developer) which works in partnership with Energy4All² (which set up and facilitate renewable energy co-operative projects throughout the UK) to promote community owned schemes across Scotland.

Boyndie Wind Farm

Boyndie Wind Farm is located approximately 2km inland from the north coast of Aberdeenshire between Portsoy and Banff.

Planning permission was granted by Aberdeenshire Council in 2004, work began in June 2005 with an investment of £10-15 million. The wind farm was built and commissioned in April 2006 and has a total of 8 turbines (each one a 2MW Enercon Turbine)

Standing 100m to tip, each of the eight turbines have a hub height of 65 metres, rotor diameter 71m and the rotor speed of up to 21.5rpm. When operating at full capacity the farm can generate 16.30MW of electricity supplying somewhere between 8500 - 9100 –nearly all homes in Banff, Whitehills, Portsoy and all nearby rural areas.

The electricity produced by the farm flows through underground cables to a sub-station located on the site. From the sub-station the electricity feeds into an existing electricity line for distribution to consumers in the area without the need for any new overhead lines. The electricity is sold through a Power Purchase Agreement (a contract between the wind farm and those wanting to buy the electricity it generates).³

The Boyndie Co-operative

The eight turbine site is owned by [Falck Renewables Wind Ltd](http://www.falckrenewables.eu/chi-siamo.aspx?sc_lang=en) and in 2005 the Boyndie Co-op was set up and established to buy a share in the wind farm in 2006. This is the first wind farm co-operative in Scotland giving local people (who have priority) and others the chance to invest in the energy produced.

Boyndie Wind Farm Co-operative Ltd is an Industrial and Provident Society registered with the Financial Services Authority under the Industrial and Provident Societies Act 1965. Members are protected by limited liability status, and its constitution is Rules approved by and registered under the Financial Services Authority.⁴

¹ Falck Renewables http://www.falckrenewables.eu/chi-siamo.aspx?sc_lang=en

² Eney4All <http://www.energy4all.co.uk/home.asp>

³ Information taken from Boyndie Wind Farm Co-operative Limited http://www.boyndie.coop/boyndie_home.asp

⁴ *ibid*

Shares

The share issue was managed by [Energy4All Ltd](#) who facilitates the ownership and operation of wind farm projects by local or community- based co-operatives around the UK. The co-op currently has 722 members each with a shareholding ranging from £250 - £20,000.

Key facts:

- Each share is worth £1
- The Minimum investment is £250 to ensure broad membership, the limit is £20,000
- All members have one vote regardless of the number of shares they hold
- Members receive annual interest on their investment
- The Board is elected by members and formed from members.
- Each share is a value of £1 with a minimum investment set at £250 to ensure broad membership. The limit is £20,000.
- If the co-op wishes they can allocate funds for an energy conservation trust to promote energy conservation in the local community. The energy conservation trust will provide information and grants for efficiency measures within the locality of the turbines to individual homes and community organisations and fund environmental books for local schools⁵ (there is no information to suggest such a Trust has been set up as yet, but a similar one has been set up under the Baywind Co-operative Wind Farm in Cumbria as a voluntary response to receiving planning permission)⁶

The Great Glen Energy Co-operative

The wind farm is owned and managed by Millennium Wind Energy Limited, a subsidiary of Falck Renewables Wind Ltd, and is located north of Invergarry and south west of Fort Augustus.

Planning permission was granted in 2004, and construction began in 2006. To date there are 26 Nordex turbines each around 115m to the tip. Each turbine has a capacity of 2.5MW, which can generate enough electricity to supply 36,000 homes. A new indoor 132kV electricity sub-station and overhead power line was constructed to connect to the National Grid through the existing nearby 132Kv circuit. It is estimated

⁵ ibid

⁶ For more information on this see Baywind Energy Co-operative Limited http://www.baywind.co.uk/baywind_community.asp?ID=COM1

the farm could displace between 63,200 and 149, 640 tonnes of carbon dioxide each year.

The Great Glen Energy Co-op was set up and bought a stake in the Millennium wind farm in September 2008 at an investment of £1,288,270. According to the website the Co-op has 673 members each with a shareholding between £250-£20,000. The terms and conditions for shares and members are similar to the Byondie Co-operative.⁷

Findhorn Eco Village

This project is collaboration between Ekopia Ltd (the local development trust) and Caledonia Energy Co-operative which is part of the Energy4All group.⁸

The wind farm is located at Findhorn in Moray and began operation in 2006 after receiving planning permission from Moray Council in 2005. The farm consists of three second hand turbines from Demark and cost £600,000. Each turbine has a capacity of 225kW with a combined capacity of 750kW and provides electricity to the 250 residents of the Findhorn Foundation eco-village community.

The 225Kw turbines are 150ft high and situated next to the community's existing single turbine built 15 years previous. About 75% of the electricity produced will be used on-site on a private grid and the remainder will be distributed to the main grid. In total it produces between 75% and 100% of the electricity used at the Findhorn Foundation.⁹

Other Co-operative examples include:

The Isle of Sky Renewables Co-operative – The Ben Aketil Wind Farm, Dunvegan on the Isle of Sky was given planning permission in 2005. Since 10 turbines each 2.3 MW have been constructed and are operating. The Isle of Sky Renewables Co-operative was set up and raised approximately £750,000 to offer locals a stake in the wind farm project.¹⁰

Kilbraur Wind Energy Co-operative – a stake was bought in the Kilbraur wind farm located in Strath Brora, Sutherland in November 2008 after raising £1,043,900. The co-op has 528 members with shares ranging from £250-£20,000. The share terms and conditions for members are the same as mentioned above. The wind farm has 27 x 2.5MW turbines and has the capacity to supply around 37,400 homes.¹¹

⁷ The Great Glen Energy Co-op http://www.greatglen.coop/greatglen_home.asp

⁸ Caledonia is a national Scottish Co-operative part of Energy4All <http://www.energy4all.co.uk/scotland/projects.asp?id=PRO1>

⁹ Energy4All <http://www.energy4all.co.uk/scotland/coops.asp?ID=PRO3&catID=2>

¹¹ For more information visit Kilbraur Wind Energy Co-operative Limited <http://www.kilbraur.coop/>

