



Newsletter Issue One February 2009

Welcome and introduction to the Great Glen Energy Co-op

It is with great pleasure that I welcome you to this our first newsletter of the Great Glen Energy Co-op (GGEC). GGEC was created towards the end of 2008 when 667 people came together to raise £1.28million to buy a stake in the Millennium Wind Farm in the hills to the West of Loch Ness. It is now the intention of the GGEC board of directors to publish this newsletter twice a year to keep all members up to date with the wind farm's performance and to explain about the other areas of work the co-op wishes to progress. We would welcome ideas, articles and suggestions for the newsletter, so please do not hesitate to get in contact through our partners Energy4All for any information you require.

Here's to a windy 2009!

Mark Jennison, GGEC Chairman

The Millennium Wind Farm



The Millennium Wind Farm initially consisted of 16 x 2.5MW Nordex turbines and associated infrastructure, with an expected life of approximately 25 years. Each turbine is around 115m high from its base to the highest point of its blade.

It is owned by Millennium Wind Energy Limited (MWEL), a subsidiary of Falck Renewables Plc. Falck are currently the only developers who have agreed to sell a stake in all their Highland wind farms to locally established co-op's.

Construction began in June 2006, the initial phase of civil engineering work consisting of road building and foundations for a substation. The first electricity was produced in July 2008 with the site becoming fully operational on the 24th November 2008. GGEC has been earning revenue from the site since the day it bought its share on 4th September 2008.

The turbines were imported from Germany and shipped into the harbour at Kyle of Lochalsh before being transported by road to the site.

Coming ashore at Kyle of Lochalsh



In order to connect to the National Grid, Scottish & Southern Energy have constructed a new, indoor 132 kV electricity substation, and a short section of wood pole overhead power line to connect to the existing nearby 132 kV circuit.

Falck Renewables have now extended the site by an additional 4 turbines; however, the co-op does not have a share in these.

Falck have recently submitted a planning application for an additional 6 turbines on the Millennium site and in line with their commitment to community engagement, if approved by the Scottish Executive, have offered GGEC the option to purchase a stake in these additional turbines which will be carried out through a 'members share issue'. The extension and the 'members share issue' will be explained in more detail at our AGM in April. Further information on the application is available from Simon Green at West Coast Energy Ltd., Falck's planning consultants, tel: 01352-757604. Members are encouraged to write in support or express any views on the application directly to Highland Council. GGEC and its board have no relationship nor involvement in the planning application for this extension, however, we welcome the opportunity to purchase a further stake in the wind farm if approved.



Why do Turbines not Rotate Constantly?

We are often asked why wind turbines are not turning. This can be due to a variety of reasons:

1. **Stopped for planned maintenance.** Just like a car, they need their oil changing and everything checked on a regular basis.
2. **Grid outages.** If the national grid is not working, the turbines cannot export their power.
3. **Stopped for technical faults.** The turbine controller continually monitors for mechanical and electrical problems. If such a fault is detected service technicians are quickly notified by a remote control system to speed up repair times.
4. **Lack of wind!** Nordex turbines require wind speeds over 3m/s (7mph) before they start generating.

It is anticipated that the turbines will work at 38% of their theoretical maximum capacity, and the predicted return to the co-op is based on this figure. Falck have a maintenance contract with the wind turbine manufacturer Nordex, to maintain and operate the wind farm. The contract is arranged to ensure it is in all parties' interest to strive to deliver a productive and reliable wind farm at all times.

The Millennium Wind Farm is currently the highest wind farm in the UK and for a large portion of the year may be surrounded by snow covered hills. This unique location improves the energy resource but brings real challenges for those who maintain them 24/7, 365 days a year!

Wind Farm Production – 2008

The 16 wind turbines produced 44.7GWh from their construction to the end of 2008. During this period the wind farm was still being commissioned with turbines being switched on and off during tests and pre-commissioning servicing. These limited figures do not provide a clear indication of the wind farm's full potential, however, the wind statistics were good and the co-op has earned its first income for this period. It will now be up to the members at the AGM in April to approve a motion to allocate the share interest.

In addition to this newsletter, production figures are available to members on the co-op's website at www.greatglen.coop You will need to access the 'members area' where new figures will be updated around the middle of each month. (If you have not received or have misplaced your *username* and *password* to log on to the members area, please get in contact with Energy4All).

Co-op contact details

Great Glen Energy Co-operative Limited
Administration Office:
c/o Energy4All
Unit 33, Trinity Enterprise Centre
Furness Business Park
Barrow in Furness
Cumbria, LA14 2PN
Tel: 01229 821028

Registered Office:
Robert Owen House
87 Bath Street
Glasgow
G2 2EE
Email: info@greatglen.coop

We would be delighted to hear any feedback or queries about Great Glen Energy Co-operative.
If you would like to contact us please call 01229 821028 or email info@greatglen.coop

Photographs courtesy of RJ McLeod and Hawkeye Photography



The GGEC Outreach Fund

The GGEC has secured a small amount of money to progress outreach work to encourage and promote the deployment of sustainable energy, in particular (but not exclusively) within the co-op's main area of benefit, the Great Glen. The current Board of Directors are keen to progress projects relating to education. Contact has been made with the 3 local schools to set up a 'Turbine Naming Competition' and arranging for children to visit the wind farm.

Do you have an idea for a project?

The GGEC board is looking for ideas from its members on what its outreach fund could be used for.

Please contact our partners, Energy4All, with your suggestions.

GGEC First AGM

We very much look forward to welcoming members to the first AGM of the Co-op on Thursday the 2nd April 2009 at the Royal Highland Hotel, Station Square, Inverness. Arrivals from 5.30pm, prompt start at 6.00pm. Light refreshments will be available.

GGEC Board of Directors **YOUR CO-OP NEEDS YOU!**

During the launch period and share offer in 2008, the GGEC board has comprised five individuals - *Jean Lafferty, Graham Strachan, Denise Paterson, Mark Jennison (Chairman) and Felix Paterson.*

As we move into our first *full* year of production and begin our outreach work, we need to expand the board to fill the seven places available. If you are interested in helping and can make 4 board meetings a year, usually in an evening, please get in contact.

Director Focus - Felix Paterson **The board's first member**



I served 30 years with the RAF, being stationed in Germany, Norway, Shetland, Falkland Islands & Bahrain. At my last post, RAF Kinloss, I worked providing telecommunicatons for the Nimrod aircraft, travelling on 'missions' to Sicily, Miami, Azores and Curacao.

Shortly after my leaving the Forces, the development of the Abbey at Fort Augustus began. I have 'worked my way up' from labourer during the internal strip-out, to Procurement Manager for the development. The abbey itself has an interesting history. It was originally built as a garrison by the Hanovarian Government of the time. Fort Augustus was de-commissioned in 1822 and was eventually gifted to the Order of Benedictine Monks in 1867. The monks were forerunners in power generation. In 1890 they built the first Hydro Electric Scheme in Scotland to supply electricity to the public.

The many renewable and sustainable Hydro Electric plants give the Highlands a very laudable Green Power Generation portfolio, which is being enhanced by wind farms, notably, the Millenuim Wind Farm.

Felix Paterson

Congratulations to Mrs Christine Ann Rigg from Fort William who won £250 of free shares in the raffle held during the share offer launch.