



Newmill Renewables

A Community Interest Company

May 2011

After about a year and a half of work, the new renewable heating system for the hall and school is ready to go on-line. Final commissioning works of the system have been taking place during May and a formal opening of the project will take place in early summer.

So what is the new heating system?

Next to the hall is the cabin which contains a boiler and fuel hopper. Wood pellets are stored in part of the cabin and burned to heat water in a boiler. This is then pumped to the hall and under the road to the school to heat their central heating systems.



The Cabin Arriving

The boiler cabin was fabricated off site by HWEnergy and delivered by crane.



The New Cabin on Site

The cabin will provide heat for the library, kitchen and playgroup in the hall and connect directly to the existing central heating system in the school. The electric heating in the main hall room has also been improved as it was not feasible to connect this to the boiler.

How did it come about?

Funding for the project was supplied by *Scottish Gas Green Streets* and *Community Energy Scotland*. The Cabin will be run by Newmill Renewables, a Community Interest Company (CIC) set up to provide renewable energy for the hall and school. This will be community run and all profits will be put towards community projects.

Future projects for the CIC include installing PV solar panels on the hall roof to provide electricity.

Technology Overview

Automated wood heating systems work on similar principles to oil or gas fired heating. Fuel is fed into the boiler on demand by the conveyancing system and the boiler controls fuel feeding rate to respond to the heating demands of the building. Having developed in Europe over the last 50 years, modern wood heating systems are extremely user friendly to operate and deliver efficiencies of approximately 90%.



This illustration shows a biomass boiler with spring agitator fuel feed mechanism. Different types and ranges of boiler will have different methods of feeding in fuel, different levels of automated cleaning and de-ashing features that can turn on and off

automatically (generally when the boiler gets below 30% of load).

The boiler is currently burning wood pellets. Wood Pellets are a factory produced product and are made of compressed sawdust. There are a number of factories now producing this fuel in Scotland and supply considerably outstrips demand. This fuel is denser than wood chip with approximately one fifth of the storage volume being required to store the same level of calorific value. The pellets are delivered by blower vehicle.



For more details visit: <http://www.hwenergy.co.uk>

Part-Time Employment Opportunity

Newmill Renewables CIC are looking to employ someone to take over the duties of cleaning the boiler, emptying the ash bins and monitoring the heat usage in the hall and school. Hours are negotiable and there may be an opportunity to take on duties of caring for the hall as well. Contact a member of Newmill Renewables for details.

Thanks to directors of Newmill Renewables, Newmill Hall Committee, Newmill School, Scottish Gas Green Streets, HWEnergy, Speyside Plumbing, Community Energy Scotland etc.