

Johnby Bank

Cumbrian textile workshop joins green energy revolution



The owners of a textile workshop and mini small-holding near Penrith in Cumbria have switched their energy supply to woodfuel to take a step closer to becoming totally environmentally friendly.

Graham and Cecilia Hewett utilise their own woodland in helping to fuel a log boiler. Johnby Bank is on the Johnby Hall Estate, where Cecilia's family has lived for many years.

Cecilia has her own hand-spinning woollen business which she runs from Johnby Bank, using mohair from her goats and wool from the Estate's Blue-faced Leicester sheep.

Kindling is gathered from local hedgerows as fodder for their goats, who process it by stripping the leaves and bark.

objectives

- To provide a sustainable heating and hot water source for a mini small-holding, home and textile workshop.
- Improve utilisation of the timber collected from their own woodland.
- To develop woodfuel usage.

actions

- Installing woodfuel boiler system, including water storage tanks and solar thermal panels for home and workshop.
- Working with Lloyd Whittaker of Thermatech to research and install the woodfuel system.
- The boiler is part of a larger scheme for a low-energy house & workshop, involving the renovation of the barn adjoining the Hewitt's house
- The Hewitt's appointed local architect, John Bodger, to the re-design part of the site as part of the project.
- Western Construction of Langwathby carried out the building work, stone-masonry and joinery.
- The timber frame was provided by Eden Frame.

achievements

- Utilising their own woodland in helping to fuel the log boiler, which provides the heating and hot water source for their home and textile workshop.
- Kindling is gathered from local hedgerows as fodder for their goats, who process it by stripping the leaves and bark.
- The new timber-frame construction is stuffed with Thermafleece sheep's wool insulation.

background

- Johnby Bank is a mini-small-holding on the Johnby Hall Estate, where Cecilia's family has lived for many years.
- The total cost of the Johnby Bank woodfuel project, including boiler, water storage tanks and installation was £13,500. The payback period is estimated to be around 10 years.
- The boiler is usually lit every two days in the winter using well-seasoned hardwood, such as ash. One wheelbarrow load of logs is usually all that is required for a burn.
- When softwood is used, the boiler needs refilling a couple of times during its burn, but is still extremely efficient. As there always has to be someone on site to tend the animals, lighting the boiler fits into the household routine easily.
- The boiler is cleaned on a weekly basis. It also requires an annual service from the installer and the flue sweeping.
- There is no backup boiler, but the house also contains a couple of small wood-burning stoves for use in cold weather, but when it is not cold enough for full heating, the solar hot water system can run independently of the wood-boiler.
- The boiler (ATMOS DC32GS log gasification boiler) heats two 800l tanks, the solar panels heat a separate 300l tank for hot water. The two big tanks heat the hot water tank, if needed, and the central heating. The nominal power output is 32KW.
- Life at Johnby Bank is intermittently blogged at www.johnbyhall.co.uk/jb

quotes

“Wood seems the ideal sustainable solution for us, since we have a ready source, both of windfall and a coppice system which is beginning this year and will help us to manage the woodlands in a way which will be more beneficial to local wildlife.

“The boiler is easy to light and clean and fits perfectly into the routine of our lifestyle.”

Cecilia Hewett from Johnby Bank

partners

Forestry Commission provided woodland management advice

Lloyd Whittaker of Thermatech installed the system www.thermatechltd.co.uk

The architect was John Bodger of Penrith.

Building work, stone-masonry and joinery was carried out by Western Construction of Langwathby
The timber frame was provided by Eden Frame.

lessons learnt

- In retrospect, the Hewetts would have probably sited the boiler and tanks in an outbuilding, instead of in the house itself, which would have made the logistics of log-moving simpler. However, the boiler's place in the heart of the home reflects the boiler's importance to the Hewetts.