

A GREEN ENERGY MAKEOVER

Gamblesby Village Hall, Gamblesby, Cumbria



The village hall in Gamblesby, Cumbria (Source: Dr. John Perkins)

Like many small rural communities, the Fellside village of Gamblesby in Cumbria's Eden Valley has had its ups and downs. Located about 12 miles northeast of Penrith, the village had seen its population dwindle to less than 200 people in the last few decades. The remaining residents had to cope with a continuous and prolonged decay in rural services and a loss of local facilities. In 2002, this culminated with the closing of the village hall, the last remaining public building, after the foot-and-mouth epidemic. But due to the efforts of a few dedicated residents, the restoration of the village hall illustrates how community ownership of a key local building can contribute significantly to restoring the morale of a declining neighbourhood.

Led by an energetic and visionary chair, the serving Village Hall Committee decided that revitalising the building would be an important element in, and also a symbol of, the village's recovery. Since competition to secure funding was very intense, the committee realised they would need something special to help ensure that renovation costs would be met, so they decided to focus the project on energy efficiency and sustainability. The group also decided to involve the whole village, utilising the skills and energies of the local community.

The building itself was built with an endowment to the village from a farmer in the 19th century, but by 2002, the former Victorian schoolhouse was deemed structurally unsound and was forced to close. In addition, the village shop, pub and one of the churches had all closed without being replaced, as had facilities in neighbouring villages. The village hall was greatly valued by local people and provided the only real opportunity to participate in social activity, particularly for those without a car.

"The village hall had been deteriorating over many years," explains Bill Mitchell, secretary of the village hall committee. "It got to the stage where somebody leaned back on a chair and went through the rotten floor. Then we knew we had to close and renovate."

The group was determined not to let the village hall suffer the same fate as the other local amenities, and the prospect of losing another community resource ensured wide-ranging community support for a refurbishment project. The village mounted a successful campaign to reclaim it from the local council and place it in the ownership of a village hall trust. The trust went on to secure funding from a range of sources to renovate the hall and bring it back into use.

The group decided that the refurbishment should be used to demonstrate a commitment to sustainable materials and energy efficiency, so they agreed exceptional levels of roof and wall insulation (made from locally-sourced sheep's wool) to make the building as energy efficient as possible and chose a ground source heat pump to feed the under-floor heating system.

"Village halls are traditionally cold, draughty, and expensive to heat. By using ground source heating, we now have a warm and welcoming venue that will save us money and is good for the environment too!"

James Watson, volunteer trustee

A ground source heat pump moves solar heat stored in the earth into a building using a method similar to that found in a fridge, but in reverse. The average soil temperature in the UK is between 8° and 13°C year-round – it's enough to warm up cold water slowly circulating in underground pipes by a few degrees. A heat pump, through the use of a compressor, can take the difference in the water temperature and concentrate it to heat water up to 50°C and feed a heating system, radiators or hot taps. This approach is cleaner, greener and involves lower energy input than heating with gas, oil or electricity.

Unfortunately, this isn't a free source of energy – the heat pump still requires electricity to run. Though the running costs of ground source are only about one-quarter of those for their old electric system, the group wanted to reduce that even further by installing a wind turbine. Using wind-generated electricity, they can pre-heat water, run the heat pump and may even generate a small income by selling excess power to the grid.

The project actively involved the whole community so that they felt it was their project, and not just something being done by the committee. A detailed programme of consultation was undertaken which found that 98% of residents were in favour of refurbishment and 95% wanted a new extension, replacing the existing flat-roofed kitchen and toilet block, which was cold, damp and particularly unwelcoming.

It was decided to plan the project in two phases – first, the insulation of the main hall and installation of the ground source heat pump, and second, the rebuilding of the kitchen and toilet block. Each phase was broken down further into smaller elements. This meant they could work out a sensible division of labour and manageable chunks of work. Each person was responsible for delivering their part of the overall project on time and on budget.

The decision was made to go local – sourcing materials locally and placing contracts with local businesses and tradespeople. "The whole community was incredibly supportive and keen to lend a hand," explains Bill, "and we had a lot of volunteers who wanted to help too. So we used the skills, tools and heavy equipment available in the village and on the farms and just got on with it ourselves. It all helped keep costs down, made the whole project viable, built a great community spirit and got people thinking about energy efficiency and using renewables at home."

The whole village was galvanised and got involved in one way or another. The majority of the work was carried out by local residents, from removing plaster from the internal walls and laying

hardcore for the new floor to installing the ceiling insulation, internal decoration and landscaping the site.

The end result is a community centre fit for the 21st century that is sustainable and secure, and has a planned maintenance programme in place to prevent future crises. The hall provides a space for a host of village meetings and societies. Volunteers currently carry out all the work associated with running the hall.

The project has done much to restore pride in the community and some economic opportunities may also be opening up through the establishment of the hall as a venue and the associated demand for catering. The whole process has enabled local people to develop skills and increased confidence that may open up future avenues for collective activity to benefit the village.

Facts and Information

- The strategy to incorporate sustainable and renewable energy into the refurbishment helped secure a variety of grants. Sustainability is not inexpensive, but it can make a scheme that would otherwise be unattractive to funders a much more viable opportunity.
- Key points to remember about a big community project
 - Take a long-term view about your organisation's sustainability and see it within the context of the big picture
 - Develop a coherent plan to meet the needs you've all agreed
 - Make use of all the talents within your committee and lead by example
 - Find innovative solutions to common problems
 - Actively involve the whole community in a big project
- Ground source heat pumps work best when there is a low heat demand since they then use less electrical energy to drive the pump. They are most appropriate when combined with high levels of insulation and underfloor heating. They make more financial sense when properties are off the main gas network.

Further Resources

- To find out more about energy projects in your community and to see other similar case studies, contact the Community Action for Energy Team (CAfE) on 08701 261 444 or email CAfE@est.org.uk or visit www.energysavingtrust.org.uk/cafe.
- The Energy Saving Trust produces useful information sheets about renewable energy technologies including ground source heat pumps. Check out: www.energysavingtrust.org.uk/generate_your_own_energy/types_of_renewables/ground_source_heat_pumps
- The Ground Source Heat Pump Association helps to promote and develop the Ground Source Heat Pump (GSHP) industry, which is growing rapidly, with installations in the UK increasing by at least 60% each year. Visit www.nef.org.uk/gshp/index.htm.
- If you are interesting in finding low energy and environmentally friendly building materials like sheep's wool insulation, take a look at www.greenbuildingstore.co.uk or www.cat.org.uk

