

ENERGY EFFICIENCY



GEOTHERMAL HEAT FOR PEAK DISTRICT FARM

Wheeldon Trees Farm, in the Peak District National Park near Buxton, is centred on a traditional 17th Century farmhouse but also has twelve acres of grassland and eight holiday homes converted from outbuildings that include a delightful 18th Century barn and haylofts. When Deborah and Martin Hofman bought the property last year they were determined that the extensive refurbishment and decoration programme they had planned should include as many environmentally sound features as possible. As Martin says "It's hard not to be aware of the environment when you live in

such a stunning place and we wanted Wheeldon Trees to be green in every sense of the word".

The most important area for change was for the heating system for the farmhouse itself and, even more important, also for the eight holiday homes. The existing water heating system was powered by grid electricity, while the central heating relied on night storage heaters; unsatisfactory both on economic and environmental grounds. The Hofmans looked at all possibilities but the potential of the open pasture land running right down to the back of the barn seemed too good to be true. As a result they decided on the use of NIBE geothermal system to

harness the energy created by solar radiation and the residual heat from rainfall and stored in the ground. A surface collector system using extensive underground plastic tubing seemed the natural medium. A bonus is that damp ground offers the most efficient medium for ground energy supply – and there's no shortage of that in the Peak District!

As part of the ambitious scheme agreed with the National Park authority, the cottages and parts of the house were first fitted with the highest level of insulation possible in buildings over two hundred years old in order to conserve the energy that

was to be recycled from the earth. When this was completed, under-floor central heating systems could be installed, the groundwork dug and piping laid before the installation of the heat pumps. For the cottages – a very extensive ground area – a powerful NIBE Fighter 1330 heat exchange unit was used, fed from 1,200 metres of 40mm mdpe pipe looped, buried roughly one metre deep in the pasture land and filled with a non-freezing emulsion of glycol and water to carry the collected heat to the pump. For the heating needs of the farmhouse a separate system of 900 metres of 40mm pipe is linked to a NIBE Fighter 1140 [a smaller heat exchange pump but still ample to supply domestic water and central heating needs for a substantial dwelling].

All installation work was carried out by Retherm Renewable Energy Solutions of Stoke-on-Trent, a company very experienced in alternative energy systems, who were delighted with this imaginative project. The grassland surrounding the farm now shows absolutely no signs of the work carried out or of the energy generation busily proceeding underground. The Hofmans are delighted with the results: their home and holiday lets are warm, hot water is readily available, the environment appeased and their heating bills slashed. Good news for Wheeldon Trees Farm!

Web: www.nibe.co.uk

On-line Enquiry no: 250
www.sheenpublishing.com

RADIATORS RAISE STAR RATING

When Jerry Ramsdale bought "The Mariners", a 17th Century Grade II listed hotel in Lyme Regis, Dorset, he set his sights on transforming it into a boutique hotel and elevating its



status from a two to a five star venue.

His ambitious refurbishment project meant changing the look and the feel of the traditional seaside hotel. "The property was dated when we bought it, everything from the internal décor to the dated storage heaters which were 30 years old, unsightly and inefficient," Jerry explains.

"We wanted to keep the character and charm of the hotel while giving it an updated feel. But this restricted our heating options – a wet system with its cost, unsightly pipe work and logistical difficulties of getting a new boiler and the time restrictions of waiting for a gas supply, ruled out traditional

central heating. We needed to look for alternative options."

An internet search led Jerry to Heat Electric's electric water-filled radiators which simply wall mount, plug in and heat up within 10 minutes.

"We wanted an efficient heating system that would fit in with the contemporary style of the hotel, be comfortable and quiet for guests and which didn't impact on other work we needed to do. We had a tight schedule of reopening the hotel within three months – a day lost was a financial loss."

Jerry ordered 14 Heat Electric radiators for every public area in the hotel including corridors, dining and sitting areas. "The radiators have been a godsend for us. They are efficient, they heat up quickly, quietly and have been

very easy and quick to install.

"Heating is not a luxury. When the right system is installed it should be a silent, unnoticed necessity which facilitates a successful business. It is never more important than when your priority is the comfort of paying guests."

He added: "In an industry as competitive as hospitality, elevating your operation to a higher, more lucrative standard is a key business goal. With the contemporary feel, comfort and efficiencies of our Heat Electric radiators and our improved décor, we are delighted to be on target to move from a two star to a five star holiday venue within the year."

Web: www.smarterheating.com

On-line Enquiry no: 251
www.sheenpublishing.com