

## Case Study

### Upper Middle Road Farm B&B - Danny and Karen Kelleher



Danny and Karen Kelleher run a B&B and smallholding near Boughrood, Wales. They are doing everything they can to be as environmentally friendly as possible, including installing solar panels and a log boiler. Not only does this reduce their carbon emissions and save money, but it also has a very positive influence on their guests. Danny and Karen say that almost all the guests are interested in the systems and often ask to be shown their operation. It has also led to additional bookings because they have achieved the Green Dragon Environmental Standard-Level Two and are marketed in the Brecon Bacons National Park's 'Stay Somewhere Green' leaflet.

*"We wanted to do everything we could to reduce our emissions but also to encourage and show others that they can do the same. Solar hot water and our log boiler have been very good for our business and have often been mentioned by guests as a positive influence on their choice of where to stay. We have a green energy statement in every room and the guests are invariably interested in finding out more".*  
Danny and Karen Kelleher



**Greenearth Energy Ltd.**

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### Log boiler details

The Fröling FHG-Turbo 30 gasifying boiler is connected to an accumulator tank, or heat store. The boiler burns one load of logs at maximum efficiency (>90%) and then stores large quantities of heat in the accumulator. This means that the boiler is lit just once a day in the winter and during spring and autumn only once every few days. The heat store allows the boiler to be lit early in the evening and still provides heat and hot water the following morning. The log boiler saves approximately 2,300 litres of oil per year which at today's prices is around £800 and would produce around 5.8 tonnes of CO<sub>2</sub>.

*"Firing the boiler is as easy as lighting a fire in a wood burning stove, and only has to be once a day, and, once lit, requires no further input. It burns so efficiently there's no smoke and very little ash indeed. We are delighted with how easy it is"*

### Solar Panel Details

The solar panels produce around half of the hot water requirements of the B&B. It heats almost all the hot water needed in the summer months, which coincides well with when the B&B is at its busiest and the wood boiler is not being fired.



### Green Dragon Environmental Standard 2

This standard recognises businesses across Wales that have made a commitment to safeguarding our environment, and are taking actions to protect and improve it.

Upper Middle Road Farm has been awarded Level 2 for:

- Reducing and monitoring energy consumed thus reducing carbon dioxide produced with a commitment to prevent pollution. We have solar heating.
- Replacing the existing oil fired boiler with a log burning batch fired boiler.
- Reducing water consumption and saving rainwater whenever possible.
- Recycling waste.
- Growing as much food as possible organically thus reducing pollution, buying other foods locally or in bulk thus reducing transportation mileage.
- Providing guests with information of local walks, amenities and activities.
- Providing cycles for guests' use.
- Aiming to continually improve our environmental impacts and update our policy.
- Aiming to comply with relevant environmental legislation.

### Further information

Danny and Karen Kelleher, Upper Middle Road Farm - [www.uppermiddleroad.co.uk](http://www.uppermiddleroad.co.uk)  
Greenearth Energy – [www.greenearthenergy.co.uk](http://www.greenearthenergy.co.uk)

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