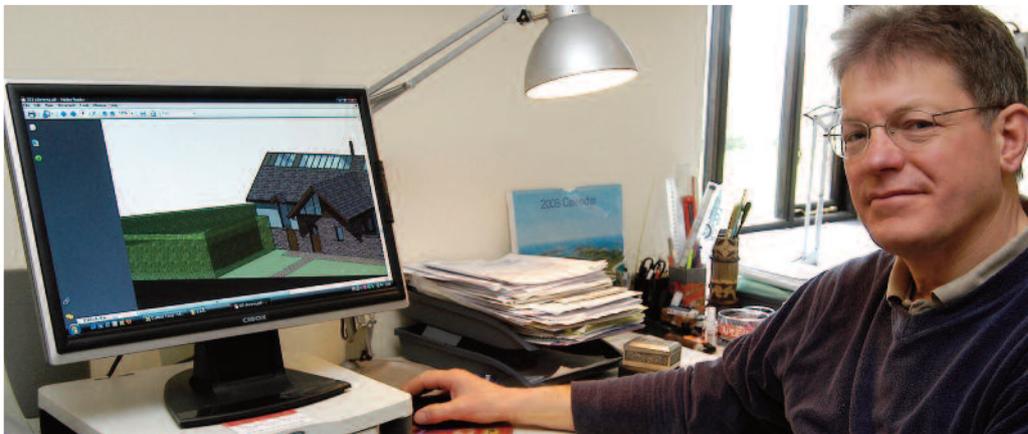




## Case study Scoble Road South Hams

RENEWABLE ENERGY 4  
**DEVON**



### Introduction

The Scoble Road Company was initially set up as a land management company to address the issues of road maintenance for four private properties. These include an architect's office and holiday accommodation. All four buildings were heated by ageing oil burners so the company decided to look into a small biomass district heating system to service them. The original plan for a central boiler did not go ahead but Peter Sandover of Sandover Associates (the architects) decided to continue alone.

### Project development

- Initial assessments for the district heating scheme by RE4D suggested that the Scoble Rd Co could either install one large 100kW boiler or four individual smaller boilers. Even though the larger boiler would require a heat main linking the sites and a heat metering arrangement it would still work out cheaper than four separate boilers.
- The Company were offered £10,000 from the AONB Sustainable Development Fund and £2,800 from RE4D. The original quote was £26,000 leaving a balance of £13,000. Unfortunately due to unforeseen circumstances and delays the district heating scheme was dropped.
- Peter Sandover decided he would still like to go ahead, and installed a new biomass system in August 2007 for his architect's premises. He chose to install solar hot water collectors at the same time to provide a sustainable solution for his space and water heating requirements.

### How the system works

The evacuated tubes heat water for hot water requirements, and a 300l twin coil storage cylinder enables Sandover Associates to store as much solar energy as possible. The tank is well insulated so water will remain hot inside for over 24 hours.

The solar system is connected with the log boiler which provides space heating. The boiler does require daily loading throughout the heating season, but the low cost of logs make this a very economical heating option. The boiler has a 25 year expected lifetime and with good maintenance it should last longer.

As a back up for the coldest days the oil boiler has been kept and is connected up to the new renewable heating system. The installer company also fitted a thermal mixing valve, automatic solar control and a solar gain sensor which offers the Sandover Associates full optimised control of the solar system and back up oil boiler.

### Costs and benefits

- The boiler will provide around 21,900kWh of heat and save around 5.8 tonnes of carbon dioxide pa. The solar hot water system will generate about 3000kWh th pa and save 0.8 tonnes of CO2. Total CO2 savings from the installation will be approx 6.5 tonnes of CO2 pa.
- Sandover Associates previously spent £1200 per year on oil, so if all wood was sourced on site at no cost the system would have a 10 year payback period at current oil prices. However, the price of oil is expected to rise which will reduce the payback period.
- Scoble Road Company were originally offered a grant of £10,000 towards district heating system, which was not used. Peter Sandover was able to claim £1064 from RE4D towards his own installation.

# Technical details

## Specification

Log boiler 25kW Vigas  
SHW 3 x 16 Solar Sense evacuated tubes  
Other equipment 300l twin coil hot water storage cylinder

## Output

25Kw boiler

## Installers

Enviro Installations Ltd

## Wider benefits

By choosing logs as the fuel rather than pellets Peter Sandover has avoided having to even buy fuel as he has a free supply from his own and local woodland. This also reduces the emissions associated with the transport of fuel to almost nothing.

## Further information

Enviro installations: 01404 891604

## Contact RE4D

[www.re4d.org](http://www.re4d.org)

[energy@re4d.org](mailto:energy@re4d.org)

0800 512 012

For independent advice and support

## Image gallery

House/offices



Solar thermal panels

