BUSINESS

# Case study
# Sunnymeade Hotel
North Devon

RENEWABLE ENERGY 4 DEVON

## Introduction

**Sunnymeade is a small hotel is near the coast of North Devon set in an acre of gardens. There are 12 en suite rooms, two of which are in a new extension. The older part of the hotel is heated by an oil boiler, so the new extension offered a good opportunity to install a more environmentally friendly system. Michael Hunt, the owner, was very keen to reduce the hotel's energy consumption, so he also put a lot of effort into improving the energy efficiency of the building.**

## Project development

- Michael always had in mind to install a solar thermal system at some point, and he wanted to use a local installer that RE4D could recommend. So he took advice from his RE4D mentor, who also helped with decision making, RE4D grant application and project management.
- The existing oil boiler was getting older, but was not ready to be replaced yet. The best solution was to upgrade the control system to ensure it ran as efficiently as possible. As Sunnymeade is not connected to mains gas the new extension had a high efficiency oil-fired condensing combi boiler fitted.
- The installation of the solar water heating system was timed to be completed before the holiday season began, so it caused no disruption to the running of the business when it was installed in March 2007

## How the system works

The solar thermal collectors have been plumbed into the main heating system, through a new twin coil storage cylinder. The older oil boiler has been serviced and upgraded, the heat distribution system (radiators) has also been completely upgraded and zoned to improve system management. The building has been fitted with double glazing, cavity wall insulation, floor insulation, and 200mm of loft insulation. PIR motion sensor light switches and energy-efficient light bulbs have also been installed throughout the hotel.

## Costs and benefits

- **The solar collectors should generate 3433kWh of heat pa, saving 860kg of CO2.**
- **The system cost £5055 to install, and Michael received a grant of £1062 from RE4D.**
- **During the summer season the older boiler which serves the kitchen area and 10 of the 12 rooms is now only running for one hour per day instead of six.**
- **Over the summer of 2007 (which was a bad summer for solar), Sunnymeade saved around £400. Annual oil savings can be estimated at approx. 860 litres.**

# Technical details

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| SHW collector | 3 x Roth F2 flat plate 2.18m$^2$ |
| Hot water storage | 300l twin coil Gledhill cylinder |
| Installers | Eco Exmoor |

# Wider benefits

The solar thermal system is an ideal option for a hotel in the South West because the demand for hot water is always highest in the summer when more guests are staying, conveniently this is the peak generation time for the solar collectors.

The panels are on the front roof of the hotel so are very visible from the road, this meant that a full planning application was required. It is also a strong statement of the owners' commitment to reducing energy consumption and CO2 emissions, which is very appealing to the increasing number of environmentally minded tourists.

"Guests are more aware of environmental issues, and these changes are a positive thing to be involved with, as well as reducing business running costs. We are very pleased with the installation so far and would recommend it to a similar business. There have been a lot of customer enquiries and there is a tangible feel-good factor for the guests. The RE4D grant and mentor support helped things go smoothly and the system to be more financially viable."

# Further information

Eco-Exmoor: www.eco-exmoor.co.uk
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# Contact RE4D

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**For independent advice and support**

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