



Case study Briony Falch's Dartmoor

RENEWABLE ENERGY 4
DEVON



Introduction

Briony Falch lives in a two bedroom, mid-terrace house, in the centre of Christow village, on the eastern edges of Dartmoor National Park. The property is heated with night storage heaters and a wood burner and is not connected to the mains gas network.

Project development

Briony was primarily motivated to look into alternative energy sources due to the moral obligation she felt to reduce her carbon emissions. This led her to investigate whether any renewable energy technology was suitable for her cottage. Any financial benefits of a long-term investment in RE were only a secondary consideration. In October 2005, Briony opted for a solar-thermal installation to heat her hot water. She was spurred into action by two leaflet drops through her letterbox from national solar-thermal companies, but decided to use a local installer because of their helpful manner and empathy with her reasons for installation. Also because she had been quoted £4,000 by one of the large companies after a cursory glance at her home.

Whilst it is difficult to calculate how far the system has contributed to Briony's hot water requirements, there has been a reduction in her consumption of electricity. The installation has also satisfied her ambition to ensure her home is equipped to reflect her concerns about climate-change.

Costs and benefits

- The system produces 1500-2100 kWh thermal and saves around 645-900 kg carbon per annum.
- The total cost was £2,892.00 + £144.60 VAT - £400 "Clear skies" grant.= £2,636.60.
- Pay back is hard to calculate; electricity consumption has decreased since the installation. Briony also switched to an electricity supplier offering green electricity generated from renewable sources and had double-glazing fitted, as well as installing low-energy light bulbs throughout her cottage.
- The installation has satisfied Briony's ambition to ensure her home is equipped to reflect her concerns about climate change.

Technical details

Installer company

Eco-Exmoor

Collector type

2.5 m2 Apricus evacuated-tube collector

Output

2 kWth approx

How the system works

The evacuated tube collector is mounted on an ideal south facing roof and receives no shading throughout the day. Water heated by the collector is fed into a 160-litre twin-coil storage tank which is located in the airing cupboard with the control unit. A thermostatically controlled back up electric immersion element provides hot water when necessary, for example in times of high demand or during cold winter conditions.

Further information

The Energy Saving Trust has lots of information for householders:

www.energysavingtrust.org.uk/generate_your_own_energy

The installers, Eco Exmoor:

www.eco-exmoor.co.uk

Contact RE4D

www.re4d.org

energy@re4d.org

0800 512 012

For independent advice and support

Image gallery

House



Evacuated tubes

