

Renewable energy case studies

Case study 2

Solar water heating

Summary

Jonathon Oates has had an interest in environmental matters for a number of years so it was for ecological reasons that he decided to install a solar water heating system in his family home in West Central Scotland.

When Jonathon pursued the possibility of installing the system he was put in touch with the Energy Saving Trust. Jonathon went ahead and got an estimate from an accredited installer and applied for the Energy Saving Trust grant. Once he received the grant offer letter he went ahead with the installation.

The installation was completed in just over a day without any problems and without the need for scaffolding as the house has only one storey. The roof is south facing and at a pitch that is suitable for efficient solar collection so there was no need for any structural adaptation. Jonathon did not have to prepare for the installation other than removing the shelving from an airing cupboard so that a larger water cylinder could be installed.

Jonathon has been extremely pleased with the system's performance over the last 12 months. He reports an immediate and very noticeable increase in water temperature as soon as the sun comes out, in the summer months it can reach 60° and more. Although the system may not start up at all if the weather is very cloudy, Jonathon has been surprised by the additional heat the system can provide to his hot water system. In terms of maintenance Jonathon has only had to re-pressurize the system once since its installation, a process he found to be quite straightforward.

Jonathon expected the system to provide about half of his hot water needs and it has certainly lived up to those expectations. One of the great advantages to a family of four is the increased hot water supply as a result of the larger water cylinder installed with the system.



Dr Oates' Glasgow home featuring solar water heating panels funded by the Energy Saving Trust.

Key points

- Equipment used: 4m² flat plate collector and a dual source hot water store
- Fuel being replaced: gas
- Estimated fuel saving: approximately £25/yr
- Estimated carbon saving: 350kg CO₂/yr

Cost

Total installation: £2,625
Energy Saving Trust grant: £787.50

Further information

In Scotland, the Energy Saving Trust (with funding from the Scottish Executive) offers homeowners grants of 30 per cent towards the cost of a renewable energy installation, up to a maximum of £4,000. Technologies eligible for funding include, but are not limited to, solar water and space heating, wind, hydro, heat pumps and automated wood fuelled boilers and stoves.

To obtain an application pack and further information contact the helpline on **0800 138 8858** or visit www.est.org.uk/schri.

