

# Solar Hot Water

## BACKGROUND...

### Solar Hot Water

**Mr and Mrs Macer** from Bowbridge in Stroud installed a Thermomax evacuated tube solar hot water system on the roof of their 3-storey Victorian home in September 2005. It was installed by Green Shop Solar in Bisley, and at the time cost £4000 including the installation. The couple received £900 in grants, £400 from the then "Clearskies" government grant (now replaced by the Low Carbon Buildings Grant), and £500 from Stroud District Council's WISE Homes grant.

Mr Macer told us: *"I have had a long-term interest in energy and heating issues, and feel strongly that the UK should not be reliant on gas and oil supplies from unstable areas of the world. A few years ago I bought a kit of electronic bits to build my own solar collector, but I never made it!"*

As a result of this, and, realising that a contribution towards the cost was available from the government and SDC, the Macers researched

into various companies on the internet and decided to use Green Shop Solar in Bisley to install their solar hot water system. For financial reasons, they decided on one panel only, consisting of twenty tubes at 1.8m in length. The whole panel measures approximately 3.6m<sup>2</sup> and is surprisingly light. The panel faces South West and catches the afternoon and evening sun. Although they do not officially monitor the amount of hot water the panel generates, they estimate that it provides all their hot water needs on sunny days, and about 50-70% of their annual hot water requirement. The system can still generate hot water on warm, cloudy days.

It is advisable to check planning issues at Stroud District Council before you start the process. The Macers

did not need planning permission for their particular installation, but each case is unique. *"Because of our distinct roof structure, the panel is hard to see from the surrounding area, and we have never had any negative comments about our panel from neighbours or local residents,"* says Mr Macer.

Full scaffolding was needed to fix the panel to the roof, and this was included in the installation price. Also included was the fitting of the tank, pump, pipes and controls.

You do need more space for the solar hot water equipment compared to a standard modern boiler. If you have a combi boiler; you will need to look into your options to fit in a storage tank for the solar system and whether your boiler can be modified to accept pre-heated water. The Macers' tank is a 210 litre cylinder and fits well into their large airing cupboard. The control panel is compact, and there also needs to be

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room for a small expansion vessel. The only problem for them was that the system was so well insulated that there wasn't very much heat to help air their clothes!

*"We have had our solar hot water system up and running since September 2005", say Mr Macer, "and to date have had no problems or any need for maintenance. We have been told that if an individual tube goes white, it needs replacing. This is, apparently, very simple to do, but it has not happened to us yet!"*

The Macers are delighted with their solar hot water system and Mr Macer has the following advice to those who want to follow in their footsteps:

*"Don't hang about! If a professionally installed solar collector is too expensive, take expert advice to find out whether you can install one yourself. No grants are available this way, though, so do your sums first!"*

### GRANTS AVAILABLE...

There is money available for domestic renewable technologies through the government's **Low Carbon Buildings Grant**. An approved installer will need to be used. As the grant is reviewed regularly, it is best to check the website at the time of application to find out how much is available for solar hot water heating:

<http://www.lowcarbonbuildings.org.uk/home>

Stroud District Council has a grant of £500, available through their **WISE Homes Grant**, to encourage local householders to install renewable technologies in their home. This money is available *in addition* to any money received through the Low Carbon Buildings Grant: Go to <http://www.stroud.gov.uk> and click on the environment tab on the homepage, or contact Debbie Hewitt direct on 01453 754464 or [debbie.hewitt@stroud.gov.uk](mailto:debbie.hewitt@stroud.gov.uk)

### SOLAR HOT WATER HEATING IN STROUD

We are fortunate to have three local certified solar hot water installation companies in the Stroud area. These are:

- **AJ Buchan Heating** near Tetbury (with showroom)  
Tel: 01285 841466 <http://www.buchan-heating.co.uk>
- **Green Shop Solar** in Bisley: (showroom due to open August 2007)  
Tel: 01452 772030 <http://www.greenshopsolar.co.uk>
- **Elite Efficient Energy**, Contact David Mark  
Tel: 01453 755677 <http://www.eliteefficientenergy.co.uk>

### FURTHER INFORMATION

For further information about solar hot water heating:

- Contact **Debbie Hewitt** at **Stroud District Council**
- **Solar Trade Association**: Tel 01908 442290 or [www.solartradeassociation.org.uk](http://www.solartradeassociation.org.uk)

**For information on local planning issues at the District Council contact: Laura Humphries, Planning Officer on 01453 754442 or [planning@stroud.gov.uk](mailto:planning@stroud.gov.uk)**