

Berkshire village family home - Domestic PV installation

Existing or Proposed Project:	EXISTING – COMMISSIONED FEBRUARY 2003
Location:	HURLEY, NR. MAIDENHEAD, BERKSHIRE
Project Leader:	PRIVATE INSTALLATION
Description:	PV array retrofitted onto rural village home to offset a proportion of the electric bills and through a desire to do something for the environment



Background

This homeowner was keen to install renewable energy on his home and take advantage of the DTI PV grant programme, which is currently offering a 50% grant, or £3,000 (whichever is the least) towards retrofit installation costs (August 2003).

The homeowner is well versed in energy issues and has attempted to be as energy efficient as possible within the home, not only to save money and to protect the environment, but also to extract the maximum value from the PV installation.

Three quotes were sought for the installation and Solarcentury, who visited the home and had an easily understood quotation, were commissioned to install one of their 'off-the-shelf' Sunstation systems.

The roof is un-shaded, faces south east and is inclined at around 45°, making it a good location for this sort of installation.

The Technology / Scope of Project

The PV installation is a typical retrofit system, consisting of eight mono-crystalline panels. The array has a power rating of 0.9kW and is expected to produce around 670 units (kWhs) of electricity a year (approx 18% of the homes total requirement). This installation also incorporates a data logging system, which provides detailed information on operation and performance. This is presented to the homeowner via a display unit (right).



When electricity use in the building is less than that being produced, the excess is exported back to the grid via a separate meter. NPower are currently taking this excess electricity under their 'Solar Money Back scheme', which pays 10p/kWh (unit) and £10 month to the homeowner to read the meter. This contributes to a reduction in annual electricity bills. Solar Century currently offer this as a standard package to those who install one of their Sunstation packages (August 2003)



The cost of the installation was £7,520, of which 47% was funded by the DTI PV grant programme (this would have been 50%, but a more expensive display unit was selected). The whole process, from seeking a quote, to the installation of the separate electricity meter took 11 months.

Importance to the Thames Valley

This home is one of the first in the south-east to benefit from this technology and the funding provided under the DTI PV grant programme. The man of the house, who works in the energy industry, remarked, "this type of project is just the beginning of a major swing towards small-scale, embedded, renewable technology, in which every homeowner has a part to play". His wife added, "I was concerned that the installation would be unsightly, but in the event it has blended in well".

PV, is an ideal application for both retrofit and new build incorporation into the regions homes. As more installations appear on Thames Valley roofs, it is hoped a critical mass can be reached whereby public demand for these technologies leads to them becoming the norm rather than the exception. This home owner is a pioneer in this sense and hopefully, in years to come, we will look back on the current financial support for domestic PV and pinpoint it as the moment that PV took the leap from being a technology of the future to becoming a common feature on our roofs.

In addition to the above, as more people install this type of product, it should hopefully stimulate a regional installation business, which in turn will create jobs.

Finally, this installation is within a conservation zone which has traditionally been a problem for those wishing to install solar technologies. In this instance, the planning application caused a great deal of confusion within the local planning authority, however, this was eventually resolved and this case can now be used as an example for other regional planning officers.

