Energy Saving Trust

dti
Department of Trade and Industry

PV Grant Programme – Dr John Lunn

Key Points

- BP5170S panels on a flat roof at a large old house in Gloucestershire
- 4.078 kWp installed
- Total installed cost of £22,957.61
- Grant value: £12,209.81

Summary

Dr Lunn had a solar hot water system installed over five years ago, and has been very pleased with its performance. He was interested in going one step further, and installing solar electric. He approached the same company who had installed the solar hot water system, Solar Sense, and they informed him about the PV grant scheme.

Unfortunately a whole summer of potential generation time was lost while Solar Sense awaited the delivery of the imported PV system, but once everything was in place the work, including a replacement roof, took just two weeks to complete. The PV system was planned with Dr Lunn's architect, as the new roof had to be capable of bearing the weight of the system. As there were other contractors onsite at the same time, the PV installers had to work to a pre-defined timescale, which caused some problems. However, Dr Lunn was pleased with the workmanship and says that Solar Sense did a good job.

There was no disruption to Dr Lunn's home while the installation took place. Dr Lunn was originally a Western Power customer, but then switched to TXU, who buy and sell electricity at the same price. An export meter has not been fitted, but instead the import meter runs backwards when the PV array is exporting to the grid. TXU do not seem to be concerned by this, and have been paying Dr Lunn approximately £20/quarter for his exported electricity. Dr Lunn takes his own monthly readings from the PV system, and since it's commissioning in September 2002, it has generated nearly 2700 kWh.

Dr Lunn's one concern has been his continued reliance on the grid. The area in which he lives is susceptible to power failure, and has suffered from two during the summer of 2003 alone. When the electricity fails, the PV system is automatically cut-off. This design is to prevent electrocution, but also renders Dr Lunn without power. The solar hot water system is similarly affected as the motorised pump stops. Dr Lunn is, however, pleased with his installation, and is currently considering the installation of a wind turbine.

Technical Information

Module	BP 5170 S
Module type	Crystalline
Inverters	SMA SWR1700e
Shading	Clear of shadows for at least 12 hours in midsummer

Financial Information

Overall cost	£22,957.61
Grant value	£12,209.81

Anticipated Performance

Estimated kWh per year	3058.5 kWh
Estimated £ saved per year[1]	£183.51
Estimated kg CO2 saved per year[2]	1315kg

[1] – *assumes 6p/kWh* [2] – *assumes 0.43kg/kWh*

Accredited Installer

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