

Property Information Sheet



Name and Address

John and Hazel Sandison
Sunnyhurst, 82 Mytton Oak Road,
Cophorne, SHREWSBURY, SY3 8UH

Property Description

1939 Semi with cavity brick walls. Original wooden and metal windows with single glazing. Insulation is acknowledged to be poor at present. Heating system is gas fired central heating supplemented with a Dunsley high output back boiler and original open fires.

What changes have you made to your home?

Installation of solar thermal DHW – 20 tube Viessmann Vitosol 300T collector. The 160 ltr DHW cylinder was found to be too small on sunny days so a second 90 ltr make-up cylinder was added with automated dumping of heat into it when main cylinder is satisfied. Installation of 2 PV arrays giving peak output of 3.96 kW. Installation of a 16" Dunsley high output back boiler connected into the central heating system using a Dunsley-Baker neutralizer to prevent cross feeding of boilers. In Mar 2016 a Solar Iboost + was installed to enhance PV heating of DHW and a small storage radiator.

Why did you make these changes?

Our motives were to garner free energy from the sun and from wood.

What were the approximate costs?

Solar Thermal Collector - £2,760 including everything other than DHW cylinder (Jul 2009)
1.8 kW peak PV installation using BP panels - £9,900 (Jun 2010)
2.2 kW peak PV installation using Sanyo panels - £8,600 (Nov 2011)
Solar Iboost+ and Storage Radiator installation - £300 approx (Mar 2016)

What have been the approximate energy savings?

Solar DHW has collected 19,239 kWh since Jul 2009 – equivalent to a saving in gas @ 3.822p/kWh of £735 if gas boiler was 100% efficient. I did not qualify for the RHI subsidy so a very long pay back.
PV panels have generated 33,054 kWh to date yielding a Feed in Tariff and Deemed Export Payments of £17,006. Iboost has diverted 9,300kWh to DHW and Storage Radiator equivalent to a saving of £355 of gas.



Property Information Sheet continued...

What have been the effects on your home?

As I have not done much work on insulation there has not been much effect on the home. However there is a huge sense of satisfaction being connected to free energy sources.

During 2020 I generated 3,256 kWh of electricity. Due to the iboost (1755 kWh diverted to DHW/Radiator) and other internal consumption I only exported 920kWh of this to the grid and at night and periods of poor production I imported 1655kWh from the grid. My net electrical footprint for the year was therefore 735kWh. Having an open fire driving the central heating although only partially green when burning wood and coal is immensely satisfying.

Who undertook the work?

Self installation of plumbing took John ages. Hazel was very patient! Installation of solar DHW collector was by Stan Silva of Shrewsbury who is a very reliable one man installer so no disconnect between salesman and installer. Work was done in 2 days. Both our PV arrays were put in by 'Eco Electrical Systems' of Bayston Hill. Another small company whose personal service I would highly recommend. Each system took about 2 days. Iboost was installed by SDM Electrics of Bayston Hill.

Would you recommend them?

I would recommend both Stan Silva for Solar DHW (01743 344512) and Eco Electrical Systems for PV. Eco Electrical Systems now trades under the name of SDM Electrics (07882 590087).

Wishlist?

I really must improve my insulation but I am reluctant to rip out my 80 year old pitch pine windows which are still pretty solid.

I would like to make more use of grey water and rain water.

Have you considered any measures but rejected them?

I have procrastinated so far on cavity wall insulation because my bricks are very hard and tend to spall badly when drilled.

Do you have any further comments?

Works conducted so far have been very rewarding and fun. I enjoy being able to monitor my PV generation on my desk at home using a 'Current Cost' monitoring system which shows me instantaneously what each PV array is generating. Now I have a smart meter I can also visually see what I am exporting to the grid and this tends to focus ones attention on limiting load during poor generation periods. Tip: From spring to autumn we use a 1kW electric kettle which enables us to utilize more of our own generated electricity - slower but draws less from grid.

YOU ARE VERY WELCOME TO VISIT OUR HOME, IF YOU ARE COMING PLEASE WEAR A FACE MASK