

30 Cavendish Close Worthing BN12 6DP

Overview

Owners: Michael & Gay Jacklin

Type: Semi-Detached

Age: 1947/1948

Beds: 3

Walls: solid brick with Rockwool cavity wall insulation

Area: 100m²

Residents: 2

Key features

Solar PV

Solar thermal

Rainwater harvesting

Reflective double glazing

Other features

Rockwool insulation

Energy efficient appliances

Low energy lighting

Vegetable and fruit growing

Thermostatic radiator valves

Renewable energy supplier

Composting

Introduction and approach

Do you want to talk and learn more about solar energy? Michael & Gay have had solar powered photo voltaic (PV) panels on their home since before 2011 and have solar thermal.

If you want to understand the difference between solar PV and solar thermal and what you can get from them, this house must be visited.

They receive an annual income of over £1500 from their panels which more than covers their energy bills and then some. While the high Feed in Tariffs (FITS) are no longer available the cost of installing solar has reduced dramatically, so understanding how it all works and how the Jacklin's utilise the sun's energy on a day to day basis, through the different seasons, is very informative.



The PV panels generate around 3200kWh per annum which, together with their solar thermal providing much of their hot water and the insulation measures, give them a very low carbon lifestyle which was their primary motivation, but they have gained so much more along the way.

They have a lovely life ethos, which to borrow a phrase from Christian Aid is, 'We live simply so that others can simply live'. And, if you are interested in Pilkington reflective glazing and Rockwool insulation, you can learn more here.

In their back garden, they have an extensive vegetable and fruit plot which uses water from their water butt, ensuring most years that no mains water is needed for their crops, meaning more water and money saved. They also produce their own compost from recycled organic waste.

Experimenting and giving it a go is very much how Michael and Gay have got to where they are now and are an inspiration if you are looking for new ways of doing things in your own home. Changes that not only save money, carbon or water, but also help to educate your family are something that the Jacklin's would be happy to share with you.

Energy and CO2 performance

Since installing their solar PV panels in 2011, they have generated around 3200kWh per annum, which has brought them an annual income of over £1500. They receive 48pence per kWh and because the panels were installed some years ago the FIT rate they are on will increase at the rate of inflation. This income allows them to be carbon free when using their own generated energy during the day. They have altered their habits to make sure they capitalise on this available free energy. Their initial reasons for installing the panels was to reduce their carbon footprint and be off grid whenever possible, however now also more than pays for all their energy costs.

Their Energy Supplier Bulb is fast becoming an energy supplier of choice for many, due to its decision to only invest in renewable energy. Whereas a few years ago such energy companies were viewed as more expensive this is no longer the case and are becoming more competitive.

With Bulb, you get excellent value, efficient customer service and they have been very impressed with them in the year they have been supplied by them, as well as being 100% renewable.

Energy efficiency measures

Heating and hot water

They installed one solar thermal panel for their hot water back in 2005. It generates about £150 a year and will take some time to pay back the return on investment, but it does allow them to have ample hot water on sunny days.

They have no dishwasher and use a cold water washing machine. Both their fridge freezer and washing machine are A+ rated. There are thermostatic radiator valves on all their radiators and they have replaced their lightbulbs with energy efficient light bulbs.

Glazing

As a cheaper way to strengthen the capabilities of their double glazing a Pilkington reflective coating was added to their windows. This was installed some 18 years ago and has been designed to specifically reduce heat loss through the windows and in effect acts like triple glazing.

Insulation

They used Rockwool insulation when their cavity wall insulation was installed some 20 years ago. The cavity wall insulation is in all 3 of their

external walls and helps provide an ambient temperature throughout the house. They rarely use the central heating due to the insulation, but do have a couple gas fires to heat the rooms that are used most.

Growing fruit and vegetables

In the back garden they grow enough fruit and veg to be largely self-sufficient for half the year.

They grow: tomatoes, cucumbers, potatoes, sweet corn, runner beans, carrots, onions, raspberries, beetroot, courgettes, swede, pumpkin and butternut squash. They also have a Lady's Finger apple tree that produces copious amounts of almost square shaped apples. They freeze much of what they don't immediately need to supply themselves throughout other seasons and also give away apples and runner beans as they get so many.

Watering of their food is through their medium size water butt, so most years no mains water is needed for the growing patch.

There are also 2 compost bins where all food and kitchen waste is re-processed.

Lessons learned/further improvements

They are very open to innovative ideas and suggestions of how to live simply but efficiently and are very happy to experiment and see what happens. They are looking to learn from other house owners to see what else they can do. They have enjoyed watching their children become more consciously aware of environmental opportunities and are pleased to see them wanting to do more about the environment.

They say it has been quite good fun learning to shave costs, while also being thoughtful about the environment.

Professional team/technical information:

Pilkington Glass: <https://www.pilkington.com/en-gb/uk/products/product-categories/thermal-insulation/pilkington-k-glass-range/pilkington-k-glass>

Organisations that the Jacklin's think very highly of are:

Tearfund & Cord. The two organisations operate a toilet twinning program, whereby for the cost of about £35 you can buy a toilet for a family in need in many parts of the world. You get a picture and the exact co-ordinates



of where your toilet is being installed. They have found these to be very good birthday and Christmas presents.

Tree Aid is their organisation of choice for offsetting any carbon they produce on their holidays. The charity is based in the Midlands but helps prevent environmental degradation by planting trees in the Sahel region of Africa threatened by desertification and global warming. For example, Shea trees are planted to produce shea butter and provide a source of income for locals.

