

15 Deanway, Hove, BN3 6DG



Overview

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|----------------------|----------|
| Age/period of house: | 1976 |
| Type: | Detached |
| Years in residence: | 13 |
| No of bedrooms: | 4 |
| No of other rooms: | 3 |
| No of floors: | 2 |
| Wall type: | Cavity |

Key words

- + insulation
- + solar thermal
- + rainwater harvesting
- + energy efficiency measures
- + bio diesel
- + water conservation

Introduction and approach

Cleland and Sharada have made considerable effort to be conscious of and reduce fossil fuel energy use in their home built in the 70s. Their approach involves monitoring energy use and observing reductions in energy and water consumption as they make environmental improvements, saving carbon emissions and money on utility bills.

Measures implemented include insulating their home and reducing heat loss through: adding a porch as a buffer zone against cold infiltration; reducing heat loss

from some windows by adding bubble wrap (effectively acting as secondary glazing); and basic draught proofing. Draught proofing as an energy efficiency measure is often overlooked, but is simple and effective in making savings on space heating.

Cleland and Sharada have a renewables company 'Ecohisolar' and in January 2007 installed 40 evacuated tubes to provide hot water, reducing their gas use by about 25%. They also produce their own bio diesel as a transport fuel and have installed a 2000L rainwater harvesting system.

Features

Energy efficiency measures and renewable energy

There have been a number of energy efficiency measures put in place by Cleland and Sharada to be less reliant on gas and electricity, reduce their family's carbon footprint and reduce energy bills. The loft and cavity walls have been insulated – costing £200 and £250 apiece – and all the windows are double-glazed. A porch was added, which acts as a buffer zone when entering the front of the house, reducing draughts. A highly efficient condensing boiler provides central heating and hot water, which is supplemented by a solar thermal array. There is a 40-tube evacuated tube system in place, which cost £3,500. All the measures together have reduced gas consumption by 60% over last 5 years, meaning a smaller carbon footprint and massively cheaper bills!

Water

There is a bespoke rainwater harvesting system, which can store 2000l of rain in a series of rainwater butts. At the moment this water is used for watering the garden,

but there are plans to use this water for the washing machine and toilet flushing as well. There are some dual flush toilets in the house and taking showers, not baths, reduces water use further.

Future improvements planned

Future plans are to insulate under floor, which would further reduce heat loss from the home, and to fit some photovoltaic panels.

Professional contacts

Eco Hi Solar – www.ecohisolar.co.uk

Grants

Low Carbon Buildings Program –
www.lowcarbonbuildings.org.uk/home/

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