

## 73 Wilbury Crescent, Hove BN3 6FH



### Overview

Age/period of house: Edwardian – 1907

Type: Terraced house

Years in residence: 23

No of bedrooms: 4

No of other rooms: 5

No of floors: 2

Wall type: Cavity

Cost of measures: £4,442

Appliances: 'A' rated

### Key words

+ solar thermal                      + insulation

+ energy conservation            + double glazing

+ 'A' rated appliances

### Introduction

Jeffery and Brenda have been in their Edwardian terraced house now for 23 years, and have always conserved energy and water in the home. As an ex-employee of Seeboard Electricity (for 31 years), Jeffery has always encouraged an economical approach to electricity use and has made sure that the household took advantage of off peak cost savings.

Now retired, Jeffery and Brenda have taken their conservation approach further, having recently installed solar thermal water heating with Southern Solar, a Lewes based company: 'the nicest contractors we've ever dealt with!' (They received a council and central government

grant to subsidise this). Their reasons were to save money, but also to improve their sustainability and property value.

In Jeffery's records of utility bills, for this and their last home, reductions can be seen when the cavity wall was insulated, and since 2006, when the solar thermal panels were installed and loft insulation was increased to 300mm, gas bills have been reduced by 44%. Jeffrey makes it a 58% saving on gas and 48% saving on electricity

### Features

#### Energy efficiency measures

The house is well insulated, with the loft insulation having been upgraded to 300mm and cavity walls insulated as well. All of the lighting is with compact fluorescent light bulbs and the appliances are 'A' rated, including a Bosch freezer. Jeffrey's record keeping of gas and electricity make it easy to directly see the impact of the various energy efficiency measures on the levels of gas and electricity used and the amount of CO<sub>2</sub> emissions the energy reduction has saved. All gadgets are always turned off and never left on standby. In total there is an annual saving of 58% on gas usage and 48% on electricity.

#### Renewable energy

In 2006 a solar thermal system was installed, which has helped virtually halve the gas bill. The system is a 4m<sup>2</sup> Stamax Filsol flat plat on a southwest-facing roof, and as a permitted development, planning permission was not required. The hot water that is generated is stored in a 210 litre vented storage cylinder, which on a sunny day is hot enough in the morning for two baths, without

the boiler going on at all. Since installation the system has generated 4532 kWh of hot water, although this is slightly offset by 2061 kWh of electricity used to pump the hot water around.

### CO<sub>2</sub> savings

All of the energy saving measures and renewable energy systems have meant that over the last five years Jeffery and Brenda have reduced the CO<sub>2</sub> emissions in their Edwardian terraced house by 54% for all the energy used for space and water heating and electrical demand.

*Note: calculation assumes a CO<sub>2</sub> conversion factor of 0.43 for electricity and 0.19 for gas.*

### Water

The water using appliances are 'A' rated and are all low fill, including a Zanussi washing machine and dishwasher. The washing machine uses 44 litres and 0.95 kWh for one cotton wash at 60 degrees, and the dishwasher is only used when full.

### Future improvements planned

Considering a second solar thermal panel on the west facing roof to benefit from the winter sun and so improve the efficiency of their system in winter.

### Professional contacts

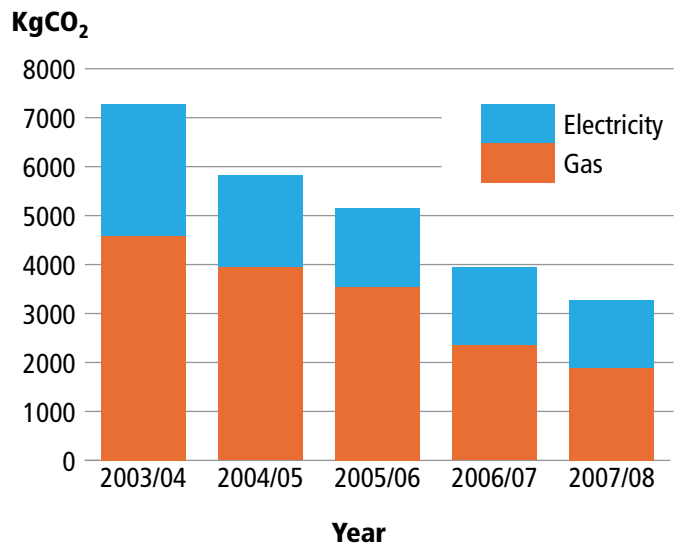
Southern Solar – [www.southernsolar.co.uk](http://www.southernsolar.co.uk)

### Grants

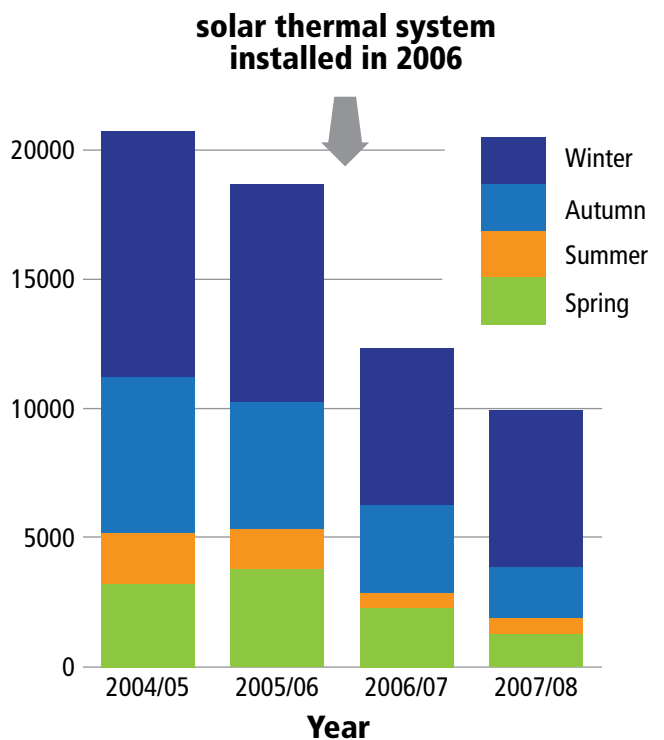
Brighton & Hove Energy Grants scheme  
[www.warmfront.co.uk](http://www.warmfront.co.uk)

Low Carbon Buildings Program  
[www.lowcarbonbuildings.org.uk/home/](http://www.lowcarbonbuildings.org.uk/home/)

### Carbon dioxide (CO<sub>2</sub>) savings



### Gas used (kWh equivalent)



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