

58 Upper Brighton Rd, Worthing BN14 9HT

Overview

Owners: Mike and Heather Brayshaw

Type: Semi Detached

Age: 1934

Beds: 4

Walls: Brick, Cavity filled

Area: 160 m²

Residents: 2 adults

Key Features

Triple Glazing

Solar PV & Thermal

Grey Water Recycling

Other Features

Cavity wall insulation

Condensing boiler

Low energy lighting

Low energy appliances

Natural materials

Solar gain

Food cultivation

Introduction and approach

Stepping into Heather and Mike's house you are immediately aware of just how quiet it is. Situated along the A27, noise reduction is a key home comfort and with the installed **triple glazing**, you are also getting excellent insulation. If you are thinking of installing glazing visit this home to learn more.

But there is so much more here, **solar PV and solar thermal** installed on the roof helping to keep the energy and water bills low. This has encouraged a shift in the clothes washing and dish washer cycles to during the day when the solar is in full flight. Add in the **grey water recycling** and you can see just how much has been done here to live consciously and carefully. They use buckets to collect shower water and washing up water to use for their



toilet flushes which has resulted in a low £10 a month water bill.

Step outside and it's a haven of fruit trees, soft fruit bushes, plants able to find their own place and grow accordingly and a beautiful tree in the centre of the garden offering shade and presence.

And as an added attraction there is a model railway system that just has to be seen along with an unusual themed downstairs loo! Everything with Mike's and Heather's life is centred around the 'resistance to following fashion and proud to be retro'. Enjoy.

Energy efficiency measures

Heating and hot water

Heating and hot water is provided via a Worcester Bosch Greenstar condensing gas boiler, situated in the clothes drying area. This is controlled by a modern programmer, room stat and TRVs on radiators.

Space heating is boosted in winter by solar gain from the modern double glazed conservatory on the south-facing rear wall. This is separated from the lounge by double glazed doors, which can be opened on sunny winter days to let the harvested solar heat enter the house. Radiators have reflector sheets behind them.

The fireplace in the lounge is also functional and is used to burn logs and confidential correspondence.

Hot water in the summer months comes almost exclusively from solar hot water tubes, which also preheat in winter.

Insulation

Cavity wall insulation – This was installed as far back as 1981 and consists of urea formaldehyde foam. This technology has been since overtaken by more modern fillings, but is still functioning well.

Triple glazing – secondary double glazing was fitted in 1981, at the front and side of the house, which worked well because noise was an issue as the house is on a busy main road. The decision was therefore taken to leave this in situ when replacing the old windows in 1993 with new double glazed units, thereby creating triple glazing. This has proved astonishingly silent and very warm.

Loft insulation – there is just 100mm of glassfibre insulation between the 100mm ceiling joists, which have been over boarded for storage, and a new loft access installed.

Porches – porches have been built at the front and rear to preserve heat and cut out noise.

Renewables and Low carbon technology

Solar Thermal – a 30 tube array was fitted in 1995 by a local contractor, Sunmaster (now Commercial kitchen contracts). This delivers heat to an insulated preheat cylinder in the loft, which in turn feeds the conventional hot water cylinder on the floor below within an efficient airing cupboard.

Solar PV – a 1.75kW array is on the south facing roof, and was installed in 2005 by Kent firm, Chelsfield Solar, and produces just under 2000 kWh pa. Many current panels claim to be more efficient, but apparently deteriorate whereas these Panasonic (rebranded from Sanyo) ones retain their capacity. To take advantage of this, high load electrical activity such as breadmaking, baking, dishwasher, washing machine is scheduled for use when the sun is shining,

Electricity

Low energy lighting – almost all lamps are now either CFL or LED. A few tungsten seldom used spotlamps still remain, but will be switched when they fail.

Appliances - All are now either A or A+ rated and the washing machine and dishwasher are only used on full loads. Freezer is set to Eco function.

Carbon emissions

Energy Use: Electricity 2600 kWh pa, Gas 12300 kWh pa, PV 2000 kWh pa.

Net CO2 emissions: Total 3.0 tonnes (46% less than average UK dwelling), 17.6 kg/m² (72% less than UK average).

Other sustainable Measures/ Lifestyle decisions

Water conservation

Grey water recycling – bath and sink water is used to either flush the WC or to water the non food part of the garden.

Rainwater harvesting – rain is collected in 6 butts, and used to water the fruit and vegetables, as well as back up for flushing the WC.

Food cultivation/ Organic food box - A wide range of vegetables are grown, including leeks, broad beans, beans, tomatoes, peas, potatoes and sweet corn. Fruit trees were planted in the early 1980s, which now yield apples, pears and plums, in addition to bushes producing blackcurrants, raspberries and blackberries. This is topped up with an organic food box. All food and garden waste is composted.

Wildlife - Mike and Heather are enthusiastic bird watchers and feed and encourage birds to come to their garden. There is also a gap in the fence for hedgehogs, occasionally used by invading foxes, a small brushwood and also uncut grassy, wildlife area, and the outside log store provides further shelter for insects.



Housesharing – now that the children are grown the house is a large for a couple, but this is mitigated not only by family visits, but also by their membership of Servas, a long standing international organisation which promotes world peace by members welcoming families and visitors to stay as guests for two nights.

Natural materials – Marmoleum flooring, wool carpets, eco paints and an avoidance of synthetic materials demonstrate their respect for the environment.

Recycled goods – a lot of their furniture is second-hand or proudly retained since their marriage 45 years ago; they use charity shops extensively for clothes and other needs. Surplus items are offered on Freecycle or gifted (with Gift Aid) to charity shops.

Professionals

Solar PV - www.chelsfieldsolar.co.uk

Solar Thermal - Sunmaster: now Commercial Kitchen Contracts, but continuing solar installations as a side-line Tel 01903-231110, E info@commercialkitchencontracts.co.uk

