



Reducing your ecological footprint

Eco-Renovations

COMMENTARY

This three-bedroom terraced house on an Oxford estate was built in 1982, and doesn't look much different from its neighbours.

But it's had an eco-renovation makeover, although many of the changes are hidden.

Inside, Mark & Alice chat about carbon calculator

MARK:

What fuel is used for heating the house?

ALICE:

That would be gas...

COMMENTARY

Mark Luntley and Alice Brander started renovating this house soon after moving here in 2002. They wanted to reduce their carbon footprint substantially; now they're using a carbon calculator to see whether there's more they could still do.

COMMENTARY

Mark and Alice are concerned about climate change and want to reduce their energy use and waste. They don't want to preach, but they do want to show people what can be done.

MARK LUNTLEY:

Al Gore talks about people going from denial right the way through to despondency, without actually stopping off in the middle to do something, and we really wanted to say we want to do something about it, and do something practical er, and influence others to do the same.

ALICE:

Well, I can't think of any sacrifice in having our particular lifestyle.

Er, no, on the contrary, I've gained more because of the greener lifestyle. we're are, 5 minutes from the shop and central Oxford.

MARK:

hopefully, as you look round the house you'll see that it looks a very ordinary house and it feels a very ordinary place, it just so happens that it uses about half the energy that it used to.

COMMENTARY

Reducing environmental impact was a high priority in the choice of this house.

MARK:

The house was a trade-off. We deliberately chose somewhere that was er, that was potentially energy efficient in the centre of town, and that cut down our transport costs, but it meant that it wasn't as large as it might have been if we'd chosen a house in the middle of the country.

MARK:

One of the advantages of this house is that it's a mid-terrace so it doesn't lose energy on either side, because they're heated, and it also faces south

COMMENTARY

The house was built pre-1982 regulations. which had poor standards for energy efficiency. So Mark and Alice commissioned an energy audit, to find out how best to improve its performance,.

COMMENTARY

High on the list for energy saving was replacing the old boiler with a new energy-efficient one. It's in the loft to save space.

MARK:

This is one of the first things that we did, it's our condensing combination boiler, This one's the smallest that we could find, it provides the hot water and heating for the house. The old model was just about broken.

COMMENTARY

Solar water heating panels were installed on the roof at the same time as the boiler was put in. They heat water and feed it into a heat store.

MARK:

This is the one-hundred litre heat store, this collects the heat from the solar panels and stores it. It either provides hot water directly or it will pre-heat water that then goes through the boiler and then out into the taps.

COMMENTARY

Good insulation is crucial to transform a cold house into a warm and energy efficient one. Mark and Alice installed environmentally-friendly sheepswool in the loft over the existing mineral wool insulation, and then tackled the heat leaking through the walls, windows and internal garage of the house.

MARK:

We had the walls cavity insulated, because they were air gaps at that time, and that made almost - that was one of the least expensive things that we did, and British Gas paid for part of the cost, but it made almost a noticeable difference within a couple of days. You suddenly realised that the house was warmer in the winter.

COMMENTARY

Adding new double-glazed windows to the existing secondary glazing reduced heat loss and made the house noticeably quieter.

Adding a porch onto the front of the house stopped cold air coming in in the winter, but the most expensive renovation was the addition of a conservatory at the back of the house, facing south. It's a luxury not everyone can afford, but it does improve the energy performance of the house, as well as providing a light-filled, relaxing space.

ALICE:

We were interested in having a solar room which would er, take the heat from the sun when it's available, store it within the solar room and then release it into the house when it was needed.

COMMENTARY

There's no artificial heating in this room, only the heat from the sun, absorbed by the tiles and walls in spring and autumn. But in winter it also helps keep the house warm.

ALICE:

The conservatory acts as a buffer zone in the winter, so it can be very cold outside, but the conservatory itself will never get less than what, 8 degrees

COMMENTARY

These energy saving measures reduced the carbon footprint of the house itself; gas and electricity use dropped by about 50%.