Words Louise Tickle

Photographs Rebecca Lupton

BEAT THE CREDIT

Scared of looking at that great big number on your gas and electricity bill? Just ask around friends and family, and you'll soon find you're not alone. After the coldest winter for 18 years, householders across the country are likely to be gasping in collective shock right now as they watch the cost of their utilities soar to previously unknown levels.

There's no way round it – if you want to keep warm in the depths of a bitter and prolonged winter chill, you have limited options: turn the heating up and pay till the pips squeak; pile on the jumpers and walk around like the Michelin man; or get clever with how you use – and save – energy in every area of your home.

For most people, finding ways to save money in the current economic climate is desirable at best, financially imperative at worst. But for some particularly vulnerable sectors of the population – older people, those with chronic and debilitating health conditions, and the very young – cold can kill. The thing is, it doesn't need to.

Greening your house to make it more energy efficient – and so cheaper to run – is not an expensive task, nor do you have to be a vastly wealthy, uncompromisingly committed, bean sprout-munching eco-freako to achieve results.

Given that a poorly insulated house can lose up to 60 per cent of its heat, getting the best energy savings from the least money involves three things: insulation, insulation, and insulation. Throw in a few draught excluders for good measure and you're away. A single trip to B&Q will sort it. And don't get tied up in guilt-ridden knots about the energy it takes to make your insulation and demand only the finest organic Hebridean fleece hand-felted by an ancient crone bent double over her non-peat fire. The consensus among energy saving experts is that any insulation is better than no insulation, and more insulation is better than whatever you've already got. If you can't afford the most eco-friendly variety (the available types are, briefly, oil-derived blown foam; a recycled paper product; and a felt fabric made from the coats of hardy mountain sheep) then buy anything that works.

Two people who took very different approaches to making their homes more environmentally friendly, cheaper to run and more comfortable to live in are environmental consultant Gill Fenna from Lancaster, and tourism manager for the Northwest Regional Development Agency, Phil Reddy.

Both are individuals who might be described as "light green" rather than "deep green". While they are highly motivated to reduce their ecological footprint, both are, for want of a better phrase, perfectly ordinary people who have simply chosen more – and sometimes less – sustainable options to make their homes greener.

Fenna has adapted her "ugly, concrete" house over a number of years. Reddy built his unusual earth-sheltered home in Cumbria from scratch – Channel 4 and Kevin McCloud gave it the *Grand Designs* treatment in 2003. Both are adamant that lessons they've learned can be taken on board by people living in a range of accommodation, and working to a budget.

Putting in a bit of elbow grease does no harm either, laughs Fenna, a woman whose toolbox must now, after years of green DIY experimentation, rival that of any builder. Prioritising eco elements was tricky when she moved into her house eight years ago, she explains, "because it was in such a state that everything needed doing. That meant I didn't necessarily do stuff in the right order."

The entire house was freezing cold, so getting it warm came first, and involved her crawling through 3ft gaps between floorboards to stuff Rockwool insulation into every crevice and cranny.

"It was a horrible job, but we noticed the difference right away," she says. The cost of insulating all the floors, and subsequently the loft, was minimal. "At current prices, around £400 for both, because I did it myself," she reckons.

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CRUNCH...

…by greening your home.

PHOTOGRAPHS
THIS PAGE: **GILL FENNA**
OPPOSITE: **PHIL REDDY'S HOME IN CUMBRIA**

There was never a sense that money was no object, Fenna emphasises. She always had to weigh decisions carefully. A wood burning stove was installed, "that by current standards probably isn't as efficient as it could be, but it was a lot better than the old fire. And we got lots of free wood from round and about, so I could keep me and the boys really warm in one room at least." Wood pellet burners are now more efficient than wood burning stoves, but both are considered carbon neutral fuels. Fenna also installed a solar water heating panel, so has no need of a boiler in the summer. Most recently, she dry-lined the bedrooms, a process that involved insulating the exterior walls to stop heat leaching out. One disadvantage of this process can be losing space: in an old house without cavity walls to insulate, the only option is to place your insulation inside the room itself.

"I lost about two inches of space by insulating inwards, but though I was worried as the boys' rooms are small, it's really not noticeable," she observes.

Again, it didn't cost a fortune: £200 for timber to construct simple frames, £100 on plasterboard to create new "walls", and £200 for Thermafleece insulation, made from sheep's wool.

"I chose Thermafleece because the house is slightly damp and the intrinsic properties of wool means it expands and improves its insulation performance in those conditions," Fenna says. "If I wasn't such a cheapskate I'd have got someone in to do the job, but for anyone even a little bit handy, it's not difficult. It took me a couple of weekends."

This has been, she says, the best value project she's done in terms of heat retained and comfort achieved set against the cost and trouble involved.

Now that she can cuddle up toasty warm anywhere in her house, what's left to do?

"Um," she says sheepishly. "Well, the Aga's got to go. It's been my big sin and we've all loved it. But I've put in a condensing boiler now for hot water, and with some trepidation, I'm about to replace the Aga with a Lancashire-made Esse wood fired range for cooking."

This is probably a step too far for most householders who just want to come in from work and get their tea on the stove: it will involve Fenna keeping a fire burning day in and day out simply in order to boil an egg. The other option was to buy a conventional oven and hob to replace the Aga, but the cosiness – and habit – of a wood stove in the kitchen has, she says, won out over practicality.

None of Fenna's choices are, she happily acknowledges, particularly groundbreaking. Step by step, over eight years, she has adopted proven green technologies and has shown that you don't have to be loaded to achieve good, planet-friendly results.

And even though his earth-sheltered home in a Cumbria quarry may look distinctly more hardcore, Phil Reddy maintains that splashing the cash in pursuit of a green living nirvana is not what his self build undertaking was ever about.

"The idea was to minimise our carbon footprint by not having any heating," he recalls. Clever design from the off was the route to get there. The home makes use of the earth's natural insulating properties by being built into a hillside, and maximises the sun's rays shining through enormous plate glass windows to warm a massive slab of concrete – which offsets its high embodied energy by acting as heat retaining 'thermal mass'. Reddy also installed 'sun tubes' to direct natural light – for free, of course – into the darker anterior of the house.

Most people would baulk at the idea of having absolutely no source of heat that they could just switch on if a cold snap really began to bite. But Reddy isn't a purist: little electric fan heaters are, he says, just occasionally used if the house cools down too much.

"Our energy bills are not absolutely insignificant, but they are very low," he says. "However, since we've just invested in a wind turbine, we are now a net exporter of energy: we are paid 10p for every single unit we generate whether we use it or not. That could earn us around a thousand pounds a year."

Plenty of families will be paying that kind of money for their gas or electricity usage alone over the next 12 months, and although most people don't live in the kind of landscape where it's possible to stick a windmill on the roof and start flogging 'leccy back to the big utilities, it's interesting to know how micro-generation might work in the future.

His earth-sheltered house shows how passive design can be extremely powerful as a way of reducing dependence on costly energy, says Reddy. Though it's unrealistic to imagine we can all build the perfect eco-home, taking on board the lesson that, for instance, the sun's free energy might justify investment in a solar panel, particularly if you have a south- or west-facing roof pitch, could quite literally pay dividends in the future.

Still, Reddy and Fenna agree that all the green gizmos in the world can't compete against insulation. "And the products are so cheap now," says Fenna. "As well as the grants, and some schemes where you'll even get it installed for free, there are always promotions in the autumn, so that's the time to stock up."

To corrupt the saying, as the only sure things in life now seem to be death, taxes and ever higher energy bills, it might be time to plan that Sunday afternoon outing to a DIY superstore...

Insulation grants ranging from 40–100 per cent of the total cost are available for cavity wall and loft insulation.

Check your entitlement at **www.freeinsulation.co.uk**

For a personal energy saving action plan and information on local grants to green up your home, go to the **Energy Saving Trust** website: **www.est.org.uk**

For more help, see our funding guide on page 13.

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THERMAFLEECE INSULATION – A WOOLLY JUMPER FOR YOUR HOME.