

it's easy being green

Making your home eco-friendly doesn't have to be a costly exercise, writes Jenny Wills.

Here we are in the 21st century, been to the moon, split the atom – yet we still haven't figured how to build decent houses. That's not quite true, of course. There are plenty of people who have it figured, it's just that the great majority of new homes ignore

the obvious – that in winter we need sunlight, lots of it, and in summer a bit of shade and a breeze would go down a treat.

Australians have been building the wrong houses for two centuries. There are exceptions, of course, but on the whole we suffer through hot houses in summer and ice boxes in winter. We fix the problems with reverse-cycle air-conditioning and heating. But they are band-aid solutions that are beginning to wear thin.

People started making noises about sustainable living years ago, but lately the idea has gone mainstream, with more and more people understanding the benefits of eco-friendly design.

And even if you couldn't give a toss about the planet, why deny your own pleasure? That attitude has been the clincher in turning people on to ideas such as passive solar design, thermal heat mass and embodied energy.

"The sustainability pill is not a bitter pill, it is a sweet pill," says designer Dick Clarke. "If your house is not needing huge amounts of artificial energy to keep it warm or cool, you think that actually does feel good."

Through his company Enviroecture Projects, Dick has been into sustainable housing for 25 years, and was part of the recent Federal Government-sponsored seminar series Sustainable Housing: Renovating Your Home. During his career, he's seen growing numbers of people embrace notions of sustainability and realise that it involves some fairly simple ideas.

"You can get too worked up about energy efficiency and not realise that it is just called good design," he says. "The layout of a building, and how that floor

plan functions, is as important as the rest of it.

"If it has a good floor plan, and relates to its site and climate, it will be a building that is loved and have a 200-year life span. By definition it is sustainable."

Clearly, many people are revamping their houses, with \$22 billion spent on home renovations in the past year. But the crucial point is whether all that hammering is about making houses better – or just bigger.

Royal Australian Institute of Architects NSW president Caroline Pidcock, whose firm, Caroline Pidcock Architects, is at the forefront of designing sustainable homes, says the big-house syndrome is a critical area of concern for the future.

"There are two scary issues not being dealt with at the moment," says Caroline, "and one of those is the size of houses."

"For any sustainable future, small is good. When you have a really well-designed small place, it can feel quite spacious. There are ways you can have that accommodation without the square metres."

Dick Clarke agrees and has even been known to convince people that they don't need a renovation, just a rearrangement.

"Clients have come to me and said they want a family room, a new dining room, and on face value you can see why they want those things. But if you look at it from a better-not-bigger view, you see what can be done to rearrange the house to make better use of floor space. The ultimate success story would be not having to lift a hammer."

That might involve turning a south-facing lounge room into a bedroom or converting a pleasant north-facing bedroom into a living space.

Good design, good orientation and good layout should all equate to good riddance to air-conditioners, the second scary issue for Caroline Pidcock.

"Air-conditioning companies are marketing themselves too well," she says.

"That notion that there is only one

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degree-range of comfort for people is incorrect. If you design the house well, and get the ventilation right, you may be uncomfortable for three to five days a year. But is that such a terrible thing, and how uncomfortable is it really?"

Why not try a ceiling fan for those hot, humid days, or plant a well-positioned tree?

But is passive solar design enough to make a difference? The recent drought – and the big wet that followed – suggest the answer is no. While Sydney was a city under water, the Warragamba Dam level had barely budged a millimetre.

"The problem is they have this catchment away from where the people are, in an area of relatively low rainfall. The rain falls where the users are," says Dick Clarke.

Brilliant. Everyone has a roof; there's your new catchment area. Even before the drought, the State Government had introduced a water-tank rebate, and a few councils made them mandatory, although uptake has been rather slow.

With Sydney's population growing by 50,000 a year and Warragamba Dam not getting any bigger, Dick says this issue won't go away.

But crisis can be a great motivator. Last summer saw people introduced to grey water, left over from baths and washing machines. Those who harnessed that wasted water retained a hint of green in their lawns. With treatment, they could even water the plants. Now, that's green thinking.

THE CONCEPT

In this redesign of a 1950s home (right), architect Caroline Pidcock not only modernised it, but introduced elements of sustainability that made it better to live in and reduced its drain on the environment. She says: "We took the existing house and worked with it substantially."

THE PROJECT

New second-storey elements were added. "Over the lounge room we put in a new roof that opened the room to the sky and the magnificent angophora outside," says Caroline. "It better connects that room with the outdoors and the high windows let in more light."

A LIGHT TOUCH

"On the first level, we reorganised the entry and stairs and turned a bunch of little rooms into a much better space," she says. Recycled timber was used for the floor and sustainably grown hoop pine for the ceiling in the lounge room. The house is naturally lit – no need for daytime lights.



Thoroughly modern: Caroline Pidcock's eco-friendly redesign of a 1950s house on the northern beaches

Pictures: Peter Brennan

green and mean

Saving the planet can also save you money. Check out these rebate programs to see what's available. You can also call the Energy Smart Information Centre on 1300 136 638 for advice.

DESIRABLE DISCOUNT

Buy a solar water-heater and receive a discount on the purchase price through renewable energy certificates (RECs), thanks to Federal Government legislation. This can represent a saving of \$350 to \$700.

Details: (02) 6274 2192 or log on to www.orer.gov.au

HOT IDEA

SEDA (Sustainable Energy Development Authority), in partnership with participating manufacturers, offers a point-of-sale discount to encourage eco-friendly hot-water systems in NSW. If you are building in an Energy Smart council area, you may be eligible for a \$500 discount off selected electric-boosted solar and heat pump systems, and \$700 off selected gas-boosted solar water heaters.

Details: www.energysmart.com.au

CASHING IN

If you install solar panels on your home in NSW, and generate your own electricity from sunlight in an eco-friendly way, you may be eligible for a cashback rebate. The Solar Power rebate is based on the number of panels installed, and calculated on a per-watt basis.

Details: www.seda.nsw.gov.au

CUTTING WOOD SMOKE

There's a \$500 incentive (\$700 for pensioners and low-income earners) to switch to a cleaner alternative to wood-burning, and a \$350 incentive to install a new combustion wood-burner that meets the applicable Australian Standard. To be eligible you must be a ratepayer in Armidale, Blue Mountains, Cooma, Goulburn, Lithgow, Orange, Tumut, Wagga Wagga or Wingecarribee. Details: www.epa.nsw.gov.au/woodsmoke

CLEARING THE AIR

To improve air quality near the M5 East freeway, the RTA, through the South Sydney Regional Organisation of Councils is offering cash rebates (\$500, or \$700 for pensioners and low-income earners) to nearby homeowners who replace older-style wood or other solid-fuel heaters with less-polluting new heaters. Details: 1800 001 267.