

A GREEN INVESTMENT

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For Richard and Yvonne Mansell, the motivation to install solar panels on the roof of their new home in Waikanae wasn't so much about saving the planet, but was more about making a sound investment.

"I don't regard myself as any kind of eco warrior or greenie, we made business decisions," says Richard, the CEO of Coastlands. "Using the electricity to save money is the big thing for me – it costs about a 40th of the price to run."

"And it is nice to know you are doing your bit for the environment," adds Yvonne, who works as a special needs teaching aide at a local primary school.

When the couple planned their new home, they knew they wanted to use an alternative energy source. They had thought about using wind power when living in their family home of 20 years in Otaihanga, and when they bought the plot of land in Waikanae, solar power was top of the list.

"Richard did the research and met up with Peter Davis of AD Architecture in Paraparaumu," says Yvonne.

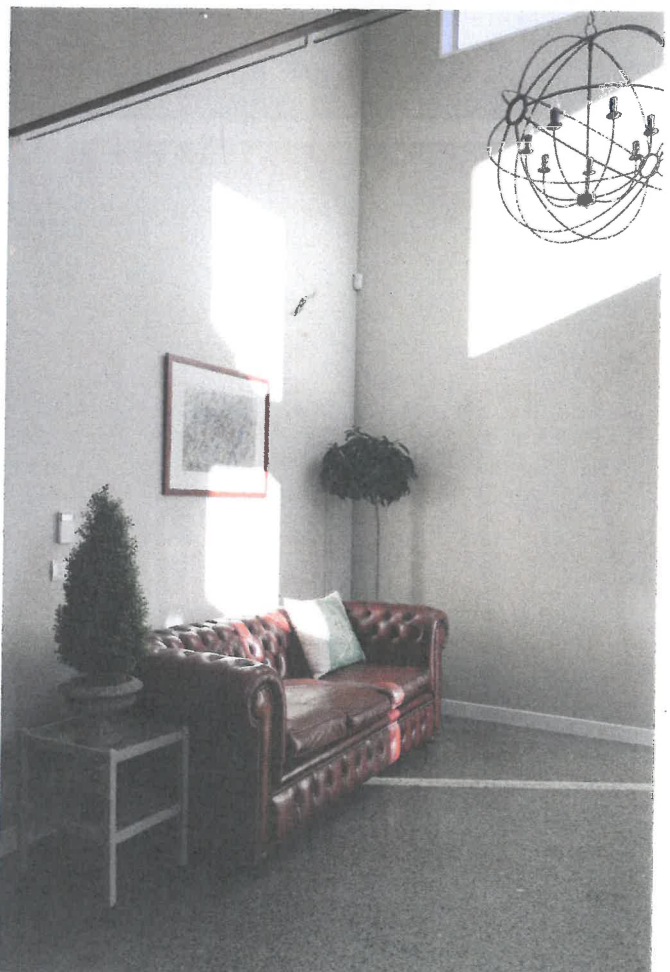
The couple had a clear idea of the spaces they wanted in their new home and, working with Peter Davis, they came up with the spacious four-bed family home they live in

today – a far cry from the 1950s 100 square-foot bungalow which sat on the land when they bought it. And after a year and a half of planning and another year and a bit of building, they moved into the property in Kohekohe Road in February.

The house has 26 solar panels on the roof. They are grid-connected photovoltaic panels which generate their own power from the sun. This means that excess electricity can be returned to the grid, although as Richard points out, for a much lower price than consumers pay for grid power.

"The aim is to heat the house during the day on our power and to top-up at the night rates during the night if we need to," he explains. "And if some of our power is sold back, it's a bonus."

To do this efficiently, they have been changing their power use habits, for example, running the dishwasher and washing machine during the day and not at night.





They also have solar hot water heaters to fill the hot water tanks and to heat the swimming pool in the back garden. The tanks in the house are heated first and the excess heat goes to the pool.

The house has under-floor heating in the concrete slab flooring which is powered by electricity. In many areas, for example the open-plan living and dining area, the concrete is exposed so it collects the sun's heat during the day and stays warm until late at night.

The concrete slab allows each room, or "zone", to be heated separately. There is a panel in the garage which shows each zone and its thermostat. "How it works, how one area is heated to a different temperature to another, don't ask me, but it works," says Richard.

And to ensure that the house retains all its warmth, they invested in quality double glazing and heavy-duty insulation. The double glazing uses an e-gas, Argon, which improves its efficiency. And the walls are thicker to allow better insulation – they have double the required standard.

They have installed LED lights throughout the house, although they admit a few halogens have sneaked in, and although there is still a big television screen, they moved from plasma to LCD LED to save power.

And finally, they harvest rainwater which is used for toilets and the garden (there is a big water tank under the grass in the front garden), but Richard says they can't take credit for this as it is a council regulation for new homes in the district.

Although they have only been living in the house for three months, so far, all of its sustainable

features are working well, as is the layout.

Richard and Yvonne wanted the house to work well for a couple as well as for a family. They have three growing boys, Joseph, 20, William, 18 and Hamish, 13, who are away a lot (the older two are at university and Hamish boards at school during the week).

"We wanted areas to be open but to be able to be closed off too," says Yvonne. "And we wanted the boys' area to be separate. We plan to be here for at least the next 20 years so were planning for changing family needs." (They have installed a lift to the upstairs bedroom for when they get older or for when elderly relatives visit).

The boys' area – which includes a bedroom each, shared bathroom and area with sofa and screen where they can play their PlayStation – is separate from the rest of the house, as is the upstairs bedroom (and walk-in closet), which Yvonne says feels like "coming up to a little tower at the end of the day."

The main living area includes dining area, kitchen and two adjacent living spaces. A large wooden dining table takes centre stage, which was the intention, and the two separate living areas look very much like a "his and hers".

One room is very dark with black sofas and black reclining chairs. A large television screen dominates one wall, and on another wall are photographs of the boys in sporting action.

"The room was designed to be dark," says Richard, "you don't want light reflected on the screen when you are watching sport." The room is sound-insulated and has a ceiling to floor sliding door.



Next door, in the “light” room, there are two facing sofas and a couple of armchairs, chandelier, bookshelves and general air of calm. (This can also be closed off with a sliding door).

Three months in, Yvonne and Richard have found that the house is working well.

“It is a nice, functional space. There is space to come together as a family and space for everyone to go off and do their own thing,” says Yvonne.

They are also pleased with the décor. They worked with friend and interior designer, Wendy Elers Colour and Design, who “knew how we lived and what we liked” and helped with everything from the colour of the roofing material to the stone cladding and the carpet.

There are personal touches, like the kitchen splashback which features a large-scale photograph of the Palais de Luxembourg in Paris, taken by Richard on a family holiday, yet it doesn’t feel at all

cluttered. Elements like the scullery at the end of the kitchen help to keep the kitchen looking tidy.

“You can hide everything away which is important when you are open plan,” says Yvonne.

They have yet to discover how well everything will work in the winter, but Richard is confident they have everything in place to ensure it works well.

“In general, houses in New Zealand are not good at heating or insulation, but this one should be good at both,” he says. “And the benefit over time of the solar power will be great. That’s why we invested so much time and money into it.”

He says they still have a lot to learn but they will learn as they go.

“And I still turn the light out when I leave a room.”

Some habits (or maybe that should be good habits) die hard. ■