

Stylish solar house cuts the winter power bills

By Sally Kidson

Nelson architect Helen Richards survived her first winter in her solar house without once switching on her heater.

While the rest of us were reaching for more wood to throw on the log burner, the 33-year-old's house's internal temperature ranged between 15 and 21 degrees.

"It's great when you wake up in the morning in winter and can just walk into the bathroom in your T-shirt," Miss Richards said.

Miss Richards' passive solar house is the culmination of years of research, and she admitted she spent the winter months nervously checking thermometers inside to check her design was working.

A trained architect, she moved to New Zealand from England five years ago, after working on a range of projects from housing blocks to football stadiums in England and Malaysia.

Her current work with solar energy arose from a strong conviction about the need to do something about global warming and energy consumption.

Passive solar houses work by using materials of dense

mass to collect, store and release the sun's energy, Miss Richards said.

Her Nelson house on the hills near Quebec Rd has concrete walls and floors to trap the heat. Double glazing and insulation help ensure the heat does not escape. Orienting the house towards the north to ensure the house received the maximum exposure to sun's rays is also vital, she explained.

Not using a heater over winter also had the bonus of lower power bills. Miss Richards said the highest winter bill she had was around \$70 per month. (A solar panel heats the water.)

Although energy efficiency was important to her, Miss Richards said style was also paramount, and she said people were often surprised an energy efficient house could look so cool.

"For me it's the fusion of style and performance that's important. I think style on its own is a bit fickle."

Miss Richards has patented her design and wants to use her home as a template for affordable solar homes.

"It's taken me months and months to learn all this stuff. Now I can share it with others."



BRIGHT IDEA: Architect Helen Richards in her solar-powered house in Laval Heights.

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