



Living in the house that the Ravells built

THE owners of Energy Efficient Options – a small family business with 16 years' experience in photovoltaics – have been living solely on solar power for more than 10 years.

The Ravells family built a house in the Thornton residential area in Cape Town, independent of the national electricity grid. The equipment needed to live without the grid, such as solar modules, regulators, batteries and inverters, amounted to R77 000.

The option to connect to the national grid, Eskom, was only R4 500, but the Ravells decided they wanted to "walk their talk" and live in a solar-powered house.

After four years, they conducted an upgrade in order to have a bigger fridge and freezer and provide power for two computers.

The system consists of 2 000 watts of solar module, which produces 8 000 watt-hours of energy a day.

The only other power source the family uses is gas for cooking and supporting the solar hot water system on cold days.

Photovoltaic technology uses the light properties of

the sun, so, as long as the sun rises in the morning, there is light being converted into energy.

However, the volume of this charge is relative to the brightness of the day.

Their batteries store eight days worth of energy, and they have already survived a rainy period as long as 14 days.

The Ravells say: "The rule of life is you will pay, the choice in life is how to pay. Independence is an option and the road to independence is called efficiency.

"Solar power systems are not cheaper than the coal-fired, nuclear or hydro systems used by the national utility to provide electricity in developed urban areas.

"Solar power is only feasible when one has to pay the national grid R65 000 a kilometre to be extended in your direction, and then to pay for availability and consumption.

"As consultation and design is free, evaluate your options. Visit us at our solar-powered home and office, which can be accessed on the corner of Tamarix and Heldersig Roads, Thornton."