Media release

Solar on the roof, no nukes next door

June 2006

Roof top solar panels can provide more than enough electricity as demonstrated by one Melbourne household for over a decade. On 4 April 2006 it was 10 years since Stuart McQuire and Wendy Orams switched their house to solar power. They have shown beyond doubt that solar electricity works.

Stuart and Wendy's West Brunswick Sustainable House was the first in Victoria and second in Australia to have grid connected solar electricity. The house has had a solar surplus each year now for 10 years, by generating more electricity than the household has used. It's put an end to them paying for electricity and they receive a credit for putting electricity back into the grid.

While it may be difficult to find people who want to live next door to nuclear power stations, there is no shortage of suburban rooftops suitable for solar power stations.

At Stuart and Wendy's the solar electricity panels sit on the north-facing roof at the front of the house and take up an area of just 18 m^2. When the sun shines the solar panels generate electricity in the form of direct current (DC), which is fed into an inverter that converts the electricity to alternating current (AC) and 240 volts, the same as normally used in other houses.

There are no batteries and there is no need for special wiring or appliances in the house. Meters record the flow of electricity if the house is putting it back into the grid when the sun's shining, or when the house is drawing from the grid as they do at night or when it's overcast.

Grid connected solar electricity systems are priced from around $5000, while one that generates a similar amount as Stuart and Wendy's average electricity consumption would cost less than $12000 (after government rebate). According to Stuart the benefits go beyond free electricity, "Solar power is the premium green power because it is renewable, abundant and non-polluting. Unlike electricity from coal, there's no smoke and no greenhouse gases. Unlike electricity from nuclear power there's is no radioactive legacy for future generations".

A further benefit of solar electricity systems is that they generate electricity right at the time when there is peak demand on hot days in summer. Little or no maintenance is required and the solar panels are designed to last at least two decades.

Ideally a premium rate would be paid for the buy-back of solar electricity put back into the grid. The most successful schemes overseas have used such incentives to encourage the installation of solar electricity. Japan and Germany have led the way, and in 2005 Germany installed over half of all the solar photovoltaic panels installed worldwide. The equivalent of over 400,000 systems the size of Stuart and Wendy's 2-kilowatt system were installed in Germany last year.

Stuart and Wendy's house also features solar hot water, rainwater tanks, water recycling, a permaculture style garden, composting and chooks. For more information visit www.greenmakeover.com.au or phone 03 9384 1752.

To arrange a photo or interview please contact
Stuart McQuire
03 9384 1752 or 0413 125 170

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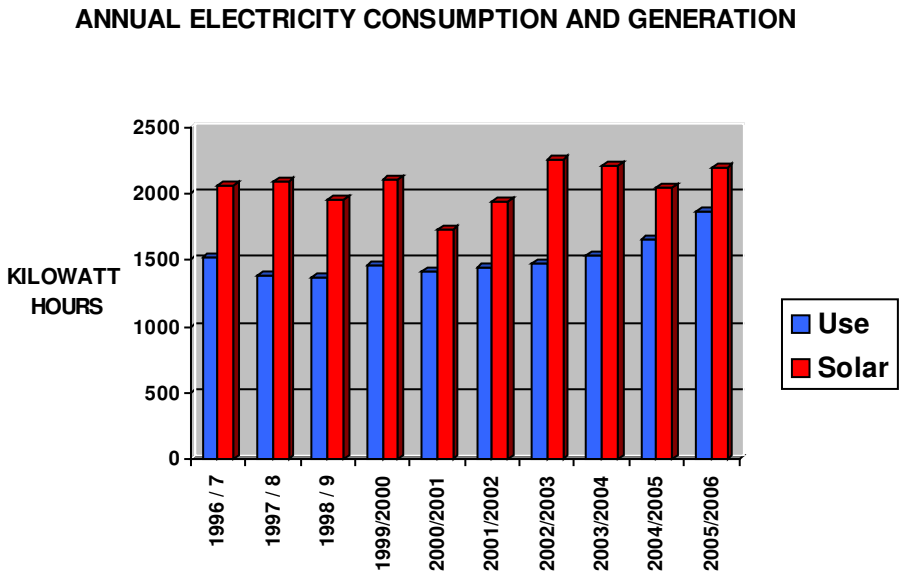
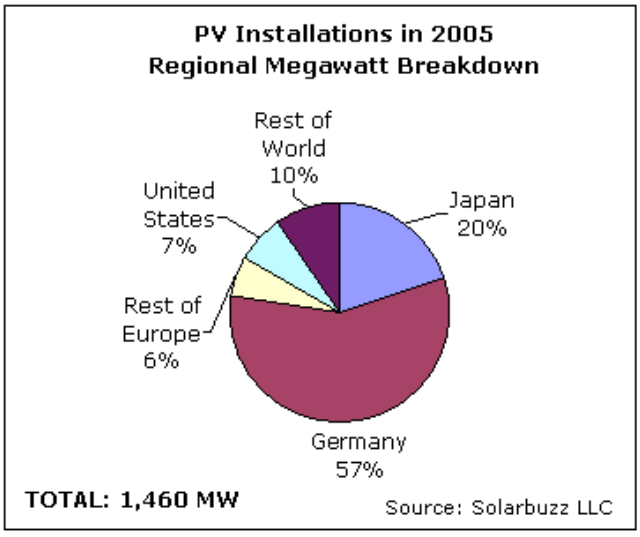
Ten years of solar surplus

The first graph shows that solar electricity has exceeded household consumption every year for 10 consecutive years. The solar panels have generated around 2000 kilowatt hours per year, and the household consumption has been around 1500 kilowatt hours per year. A surplus or credit of over 5000 kilowatt hours has built up, with the household using just under ¾ of the solar electricity that was generated. This shows that Stuart & Wendy could have used a smaller system to meet their needs.



Solar installations worldwide

`Sunny' Germany leads the way. The equivalent of over 400,000 systems the size of Stuart and Wendy's 2-kilowatt system were installed in Germany last year.



(graph from www.solarbuzz.com/Marketbuzz2006-intro.htm)