How you can save with solar

THE facts about solar seem to be constantly changing as the Federal and State Governments change their Climate Change tactics and credentials.

The truth is that the average Australian believes in solar as a power source, and most are horrified to discover that Australia is so far behind Europe in its solar technology, uptake and rebates.

How can we make a difference to both our power bills and our carbon footprint by harnessing the one thing we have plenty of in Australia - the sun?

GRID-CONNECTED SOLAR - Every home, office, school and other building has the potential to become its own mini power station by installing solar panels on a north-facing roof and connecting them into an energy inverter and your meter box.

When the sun shines (and even on cloudy days) the daylight pumps power firstly into your building to supply any power requirements there, and then back into the electricity grid. After the sun has gone down, your power needs are met by your electricity supplier, and at the end of the billing cycle they do a tally of what you used from them, versus what you provided to them.

At the moment they pay like for like (ie they bill you 18 cents per Kilowatt Hour, and they pay you 18 cents per kW/h for what you produce). But all that changes as of the 1st January when the new NSW feed-In Tariff comes into effect.

From that date on all the NSW electricity companies have to pay 60 cents (nett) per kW/h. As they say in America, do the math!

SOLAR HOT WATER - Rather than paying the electricity company to heat up your water, you make an initial infrastructure investment and then enjoy free hot water for ever more.

Solar Hot Water systems are a really cheap and effective way to make a difference both to the environment and your monthly electricity bills. (Water heating is the largest single source of greenhouse gas emissions from the average Australian home, accounting for around 28 per cent of home energy use (excluding the family car).

Installing a climate friendly hot water system can shave $300 to $700 off an average family's electricity bills each year.)

Solar Hot Water systems have evolved dramatically over the last few years and there is now a wide choice of

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styles, makes and models to suit your roof, budget and household size (for instance round solar tubes to blend in with corrugated roofs, hot water tanks on the ground rather than with the panel etc.,) and you can choose between having a gas or electricity booster systems for those cool cloudy days.

HOW MUCH? - As a guide, a 1 KW grid connect system, producing (on average) five KW hours a day, will cost from $9000. You will earn 103 RECS (Renewable Energy Certificate).

A 1.5 KW system will cost from $11,000 and earn 155 RECs. A 2 KW system will cost from $14,000 and earn 165 RECs. Solar Hot Water costs from $5500 and you will receive $1600 rebate from the Federal Government and between $600 and $1,200 from the State Government depending on the system.

You will also receive RECs.

REBATES AND RECs - The Rudd Government has introduced a new system for Australians wishing to install solar. Rather than a straight rebate, they are allotting more Renewable Energy Certificates in the form of Solar Credits to each style of installation. These are literally shares in the Renewable Energy sector which coal power companies and industrials buy in order to meet their Renewable Energy Targets. Prices for RECs had risen to $48.00 per certificate under the old rebate scheme but are currently down to $25.00 each as the new scheme has created a glut in the market. So hold on to your RECs for a rainy day and wait for the new Feed In Tariff.

BUYER BEWARE! - Unfortunately there are some big companies out there with some strong-arm, sign up now sales tactics and as a result some sorry tales to be told. When you are choosing a supplier for any form of solar investment, ask the following questions: is this person a CEC accredited installer? How long have they personally been installing solar systems for? Where are the panels from and what brand are they? What brand inverter will be used? (like all things, there is the good, the bad, the ugly and then the cheap and nasty.) And most importantly, where are these people from and who will come to fix it if anything goes wrong and how long might a call out take?

BENEFITS FOR BUSINESSES - Under the Government stimulus package, businesses who install a grid-connected solar system before 31st December 2009 are eligible for a 50% tax break on the whole installation cost (if they turn over less than $2 million per annum).

Even if you are not yet ready for the move to clean, green power for any part of your home or office, you will be well served in talking to an expert about becoming more energy efficient - not just for the sake of the environment and keeping this pristine area pollution free, but because the less you use, the less you pay for! The big drains on your energy usage are any household items which have a heating element - the iron, breadmaker, toaster, hairdryer, electric grill, front loading washing machine, toasted sandwich maker, electric frypan, air conditioner, heaters, hot water service etc. Actually turning off lights is not nearly as helpful as getting rid of a few of the above. Having the TV, video, microwave etc on standby drains a surprising amount of energy from the power source, and pennies from your pocket. Actually turning all those appliances off at the switch will make a big difference to your power bills.

There is no doubt that solar power is the only viable future for Australia's energy needs. And sooner or later we have to take responsibility, both collectively and individually for our power requirements so that civilisation can grow in a sustainable way. Let's hope it's this generation that takes a stand, embraces solar, and makes a difference.

Let's power Australia not by digging deep into the earth, but by looking up.