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Solar Power systems were once the domain of fringe dwelling individuals who preferred their isolated lifestyles and enjoyed the freedom of being self –sufficient. Nowadays, as well as the former, many environmentally conscious people from all walks of life are switching on to solar and producing clean, green energy, free from the sun.

Our acceptance of the possibility that our growing demand for energy is one of the likely causes of global warming is creating a culture of people looking to embrace renewable energy and adopt energy efficient principles to do their bit and be part of the solution.

Solar power in its current forms is now seen as a simple and quantifiable resource that can be used in every home , office or school. The ball is now rolling, and in our future, a solar power system on a rooftop will seem as normal as a television antenna.

Generally solar can be broken down into 2 categories;

1. PHOTOVOLTAIC

These solar panels, rated in watts, convert *light* from the Sun into electricity and can be used to

- a. supply a load directly e.g. pumping
- b. charge a battery to store energy e.g. standalone power supplies
- c. off-set the amount of energy you have to import from the grid e.g. grid connected

This last example has now gained popularity with the federal governments' \$8000.00 photovoltaic rebate scheme and the solar for schools programme. It should also be noted that for those people, for whom the cost to connect their principle places of residence or business to the electricity grid exceeds \$30,000.00 a rebate of 50% of the installed cost of a standalone system is now available

2. SOLAR THERMAL

Using *heat* from the sun to warm our water is the simplest and most cost effective way to enjoy the benefits of solar power.

There are 2 basic types of solar hot water collector

a. flat plate collectors- (usually seen as rectangular encased glass) these perform well in moderate conditions, but can give rise to problems associated with sub –zero temperatures.

b. evacuated tubes- (an array of 20 -40 tubes) will out perform flat plate collectors in marginal conditions and are far better suited to frost prone areas as water is circulated only through the heavily insulated manifold and not the collectors themselves.

Designed by an Australian more than 20 years ago, these evacuated tube systems are now used in many countries throughout the world. Being a split system i.e. tank on the ground they have less visual impact and there is no need for roof re-enforcement .They require less boosting in cloudy conditions and can be retro- fitted to an existing tank.

For more information please visit

www.centralwestsolar.com.au