

COMMITTEE SECRETARY
DEPARTMENT OF THE SENATE

SUBMISSION TO THE SENATE STANDING COMMITTEE ON ENVIRONMENT,
COMMUNICATIONS, AND THE ARTS.

- 1) (Solar Rebate Protection) Bill 2008
- 2) (Feed in Tariff) Bill 2008-08-07

From: David Bond (engineer retired)

No person or household should use solar photovoltaic power if easy access to grid power is available, and no government should subsidise such inefficient and expensive power. Households wishing to buy energy from renewable sources can do it most cheaply and efficiently by buying it from their regular supplier. For example, Country Energy will supply 100% "green" energy for a surcharge of \$6 per week. Based on average household use of 6400 kilowatt hours per year, (NSW Dept of Water and Energy) the extra cost is 4.9 cents per kilowatt hour, and the overall cost to the household will be about 20 cents per kilowatt hour (excluding the service charge, which is levied regardless of power source).

A 1 kilowatt peak power (note that solar photovoltaics and wind generators are rated by their peak power, which is obtained when the sun is shining strongly and the wind is blowing strongly. On a year round average photovoltaics produce about 15% and wind generators about 30% of their peak ratings. This varies according to locality.) photovoltaic assembly and associated electronics costs about \$12,000, and has a life of perhaps 40 years. It will produce about 850 kilowatt hours per year, which is less than one sixth of average household consumption. Assuming no maintenance costs, the solar electricity costs 35c per kilowatt hour, that is, nearly double the price of green power from the grid. (This pricing ignores the opportunity cost of \$12,000, which is about \$600 per year or 70 cents per kilowatt hour.) These figures can be reworked to account for a subsidy, but the cost is transferred to the general public via the government.

Why is green power cheaper from the grid? Because it is mainly from hydro and wind, and it is generated on a large scale. Very little of it comes from photovoltaics, which are the most expensive and least reliable (because the sun doesn't always shine).

Why do people want to put solarvoltaics on their roofs when green power from the grid is little more than half the price? Maybe it's plain ignorance, as the surcharge is not well publicised and seems not to be advocated at all by the government. Maybe there is a feelgood element. People can see the panels, like people can see the Prius (another disastrously cost inefficient device). It would be interesting to compare the takeup of solarvoltaics between houses where they do and do not show to the street. Perhaps those who take the intelligent option of green power from the grid could be issued with a little sign to put in their front garden, like the "we use bore water" signs.

More importantly, why would any intelligent government subsidise an inefficient, unreliable, and very costly power source? Rent seeking by the photovoltaic industry, based on peak power pricing, should be ignored. The industry is mature and not competitive with other green power sources. The small improvements it makes year by year will easily be matched by lower cost sources.

We move now to the "buyback" price, which really says it all. I have seen suggestions of 40 cents to 60 cents per kilowatt hour. The buyback price should be set by the market, not the government. If consumers want certainty for their investment, there is always a bank deposit, with interest paying for green power from the grid.

I move now to the pricing of green power by the distributors. The surcharge is OK for 25% and perhaps 50% green, but is inappropriate for 100%. Why should a buyer of 100% green power pay a price closely related to the price of fossil based power? Fossil based power will become more expensive with carbon costs, and green power may well become cheaper with improved technology and larger scale. The current pricing system is not an incentive to buy green power. I have asked both Country Energy and Jackgreen Energy to quote for 100% green power at a price not related to fossil power. I have made repeated requests and they have not replied to me. I will soon be referring them to the Power and Water Ombudsman, and if this does not work to the NSW and Australian governments. The distributors must know what they pay for green power, and what their sale price should be. The public should also know, and they should know the effect on that price of any subsidy.