

Sent: Sunday, 27 November 2011 3:09 PM
To: IPART Mailbox
Subject: Submission related to solar energy enquiry

I'd like to make the following comments in relation to your draft report:

(1) The figure 4.4 is very obscure and probably wrongly labelled.

If a 5 kW solar system is operating at its rated output around noon, then it is producing 5 kW of power and 2.5 kWh of energy in a 30 minute period.

If you choose to aggregate your data by 30-minute periods instead of whole hours, then your 30-minute energy output would be 2.5 kWh of energy but your power output is still 5 kW which is 5000 Joules of energy per second.

Your figure 4.4 in your report is labelled kW. This chart is showing that 5 kW solar PV systems are creating less than 2.1 kW of power at noon over the year. That's simply not true. Allowing for cloudy days over a whole year, average power output should be about 4 kW during the peak solar hours of the day.

Therefore, it can only logically and plausibly be the case that the 2.1 kW peak figure being shown for 5 kW systems on your figure, must be the half-hourly ENERGY figure. That is, average production of 2.1 kWh in half an hour, compared to potential production of 2.5 kWh in half an hour for a 5 kW system. Which is consistent with the fact that 80% of days are sunny at noon.

The vertical axis of your chart should be labelled "kWh" or better still "30 minute kWh" and not kW.

I'll send other comments later

Robert Heal