at normal operating conditons this has a max power output of 253.9 watts, over an hour that is 253.9 watt/hours. To generate 1kWh

Hi there,

I am new to Solar and would like to validate some of the things I have read about both Solar Panels and Feed in Tariff.

First the panel questions:

I am looking at buying just over 10kW of panels so for arguments sake, let's say I buy x31 Panasonic VBHN330SJ4 (https://eu-solar.panasonic.net/cps/rde/xbcr/solar\_en/2017\_Panasonic\_HIT\_Catalogue\_EN.pdf) - so giving me a total output of: 10230w or 10.23 kW?

At normal advertised operating conditions (NOCT), each panel will provide me with a Max power of 253w, so over an hour of 1,000w/m2 or full sunlight, this will be 253 w/hour multiplied by 31 panels gives me 7,874 w/hours or 7.874 kW/hours? Given an average of 6 hours of full sunlight a day (is this a reasonable assumption for the UK?), gives me a daily total of 47.244 kW/hours of output, over a year (365 days) gives me 17,244.06 kW/hours of output? Do the above workings make sense? Also, I assume the solar panel efficiency percentage (19.7%) won't affect these above calculations?

Now on to feed in tariff questions/assumptions;

Based on the above, I my Total Installed Capacity is 10.23kW, so I would be able to classify for the feed in tariff of 4.15 p/kWh based off: https://www.ofgem.gov.uk/environmental-programmes/fit/fit-tariff-rates and the flat fee of 5.03 p/kWh if I sold 100% of my output to the grid.

Given the above, for every kWh I generate I would able to generate 9.18 p/kWh? So my total payment over the year (17,244.06 kW/hours multiplied by 9.18 p/kWh) would be £1,583?

Apart from the obvious of not using any of the electricity I use, is there anything I have missed / gotten wrong? Are there any other factors I should consider, or do my workings make sense?

Cheers

Mark