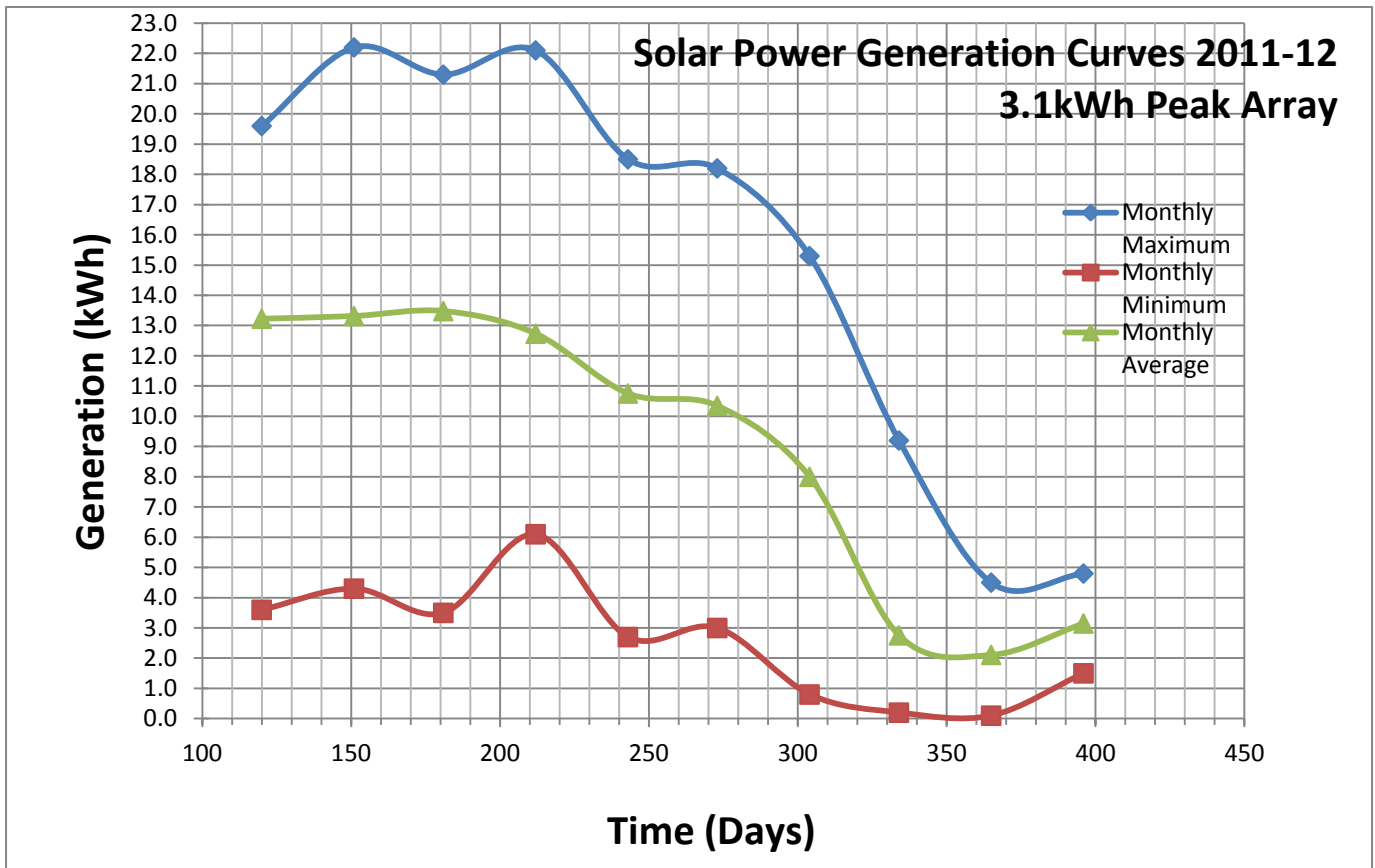


## Nine month report on New World Solar Mitsubishi PV Installation in Kenilworth

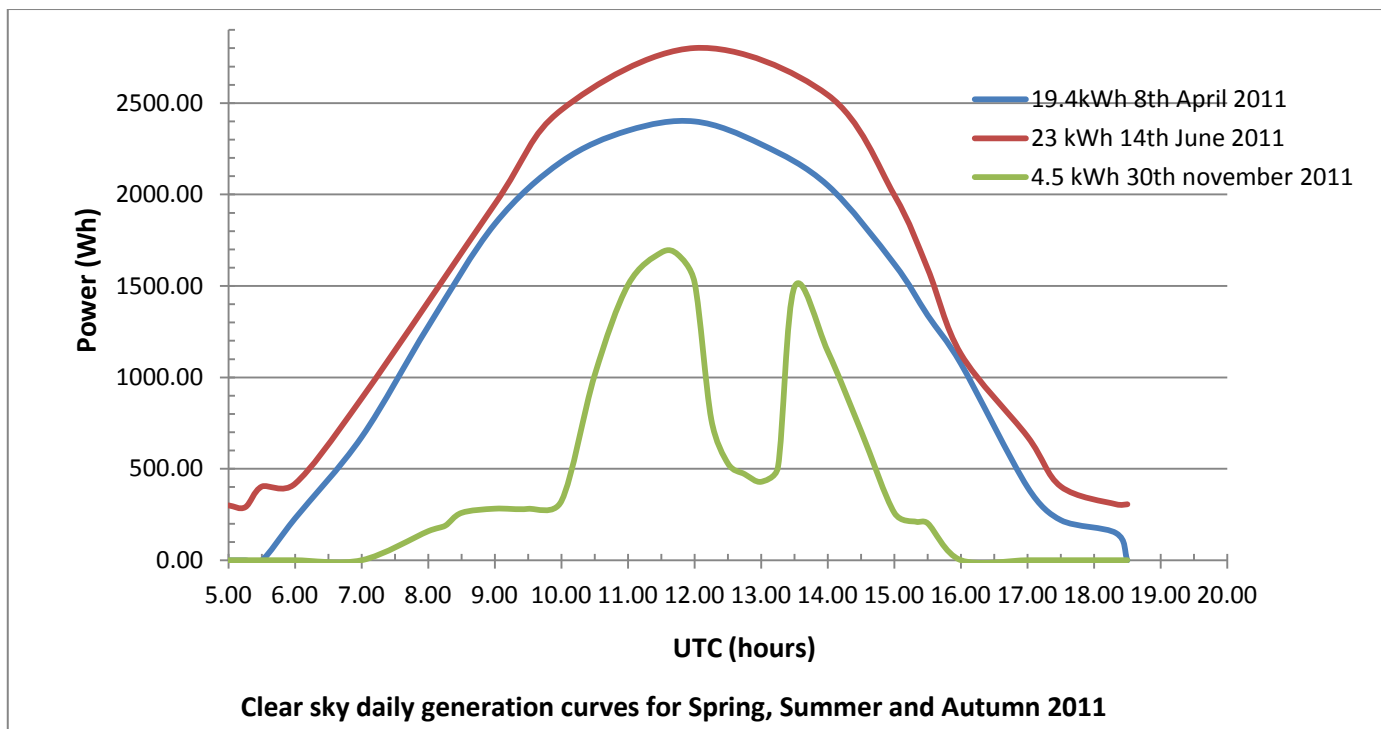
Our system was installed on 1<sup>st</sup> April 2011 and as of sundown on 31<sup>st</sup> December, exactly 9 months from installation it had generated a total of 2.606kWh; compared to a projected annual generation at installation of 2600kWh/year. The maximum daily power generated in 2011 was 22.2kWh on May 2<sup>nd</sup>. The following graph shows the maximum, minimum and average power generated per day for each month so far. (the last data points for January 2012 are based on results for the 1<sup>st</sup> and 2<sup>nd</sup> January only and will of course be similar to December 2011 come the end of the month)



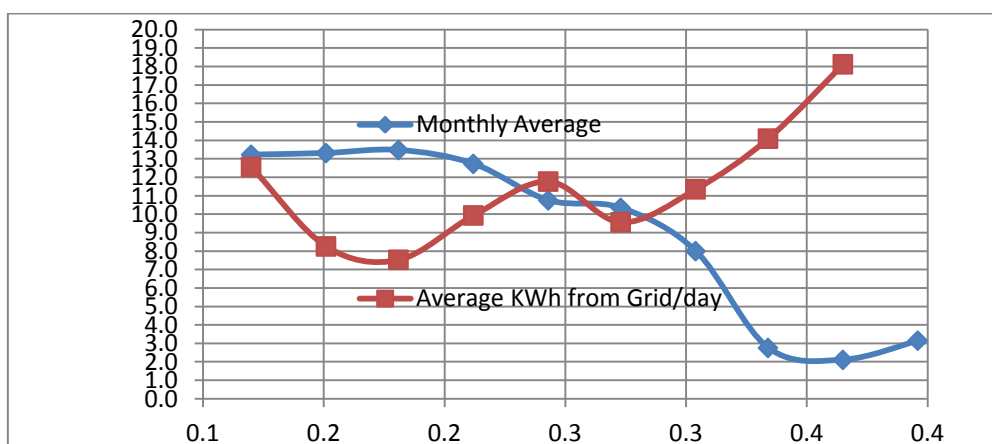
The system, comprising 14x Mitsubishi 225W panels and a Sunny Boy SB3000 inverter has therefore proven to have delivered significantly above the original projected performance in its first year of operation and we are very satisfied with the results so far. Our array appears to generate as much on a day by day basis as a neighbour's 16x Sharp panel installation and this alone justifies in our minds our choice of the higher output Mitsubishi panels; provided they keep performing at this level.

Assuming this level of performance is maintained year on year( from the curves it can be seen that April and May 2011 were exceptionally sunny) then the system should start realising a return on investment in 6 years, 9 months at the current generation and feed-in tariff rates. Even allowing for a 1% fall off in performance year on year, this should have a negligible effect on the outcome and with the index linked nature of the generation tariff, it could be that we will start to realise a return even sooner than this.

The only black cloud (or rather big green tree) on the horizon, is the fir tree in my rear neighbours garden, whose shadow transits the panels during the midday period between mid November and mid February and has a significant impact during peak generation hours in winter. (see the clear sky generation curve for 30<sup>th</sup> November below). Once I have a better idea of its overall impact on winter generation, I will approach him and offer to contribute to getting it topped off. The morning drop off in November is due to a deciduous tree on common land and I have request the council prune it back.



The impact of our PV generation on our draw down from our Electricity supplier is illustrated below.



Apart from a the upward blip in the red curve during mid summer due to the return of our daughter from University, who appears to have a night time tumble dryer fetish; it looks as if we can expect to generate more than we consume from the grid during 6 months of the year.

The economics for Q2 and Q4 2011 are shown in the following table.

2011	Generated (£)	Generated (kW)	Bought (£)	Bought (kW)	G-B (£)	G-B9 (kW)	Gen (£/kW)	Buy (£/kW)
Q1								
Q2	£385.53	859.6	£214.45	1767.0	£171.08	-907.4	£0.45	£0.12
Q3	£515.37	1149.1	£141.32	1084.0	£374.05	65.1	£0.45	£0.13
Q4								
Total	£900.90	2,008.7	£355.77	2,851.0	£545.13	-842.3		

For the two central generation quarters in 2011 there was a net amount in our favour of £545. (i.e. British gas paid us £545 more for the power generated than we paid British Gas for electricity from the grid.