

Calculations...

General Guidance

The performance of Solar PV systems is impossible to predict with certainty due to the variability in the amount of solar radiation (sunlight) from location to location and from year to year. This estimate is based upon the standard MCS procedures as guidance only. It should not be considered as a guarantee of performance. We will also have to make you aware that metering will be required if you wish to access certain financial investment schemes.

A further illustration of the reward calculation can be found at www.energysavingtrust.org.uk and the applied procedure under the MIS 3002 Issue 3.2 MCS installer standards at www.microgenerationcertification.org

Accuracy Guidance

The system performance calculation has been undertaken using the estimated values for array orientation, inclination or shading. Actual performance may be significantly lower or higher if the characteristics of the installed system vary from the estimated values. This calculation is subject to a full site survey having been completed.

Shading Guidance

The shade assessment has been undertaken using the standard MCS procedure, it is estimated that this method will yield results within 10% of the annual energy yield for most systems. Attached to this document is the horizon sun path chart which is used in the calculation procedure. The sun path diagram has 84 blocks and each block has a calculation measurement value of 0.01. Obstacles blocking the view of the Solar PV system will be shaded on this chart and based upon the number of blocks shaded, this provides a correction factor that will better predict the direct sunlight path on your PV system. For example – 1 block is shaded, so the calculation would be $1 \times 0.01 = 1$ (shading factor).

How We Work It Out

There are 3 different factors used to make up this calculation

$kWp \times Kk \times SF$

1. **kWp** is the total size of the solar array installed.
2. **Kk** this information is the irradiance (sunlight) in your postcode region.
3. **SF** is the shading factor.

The calculation we used in this instance to give the assumed output is:

$$2.84 \times 1040 \times 1.00 \\ = 2,953.60 \text{ kWh per year}$$