

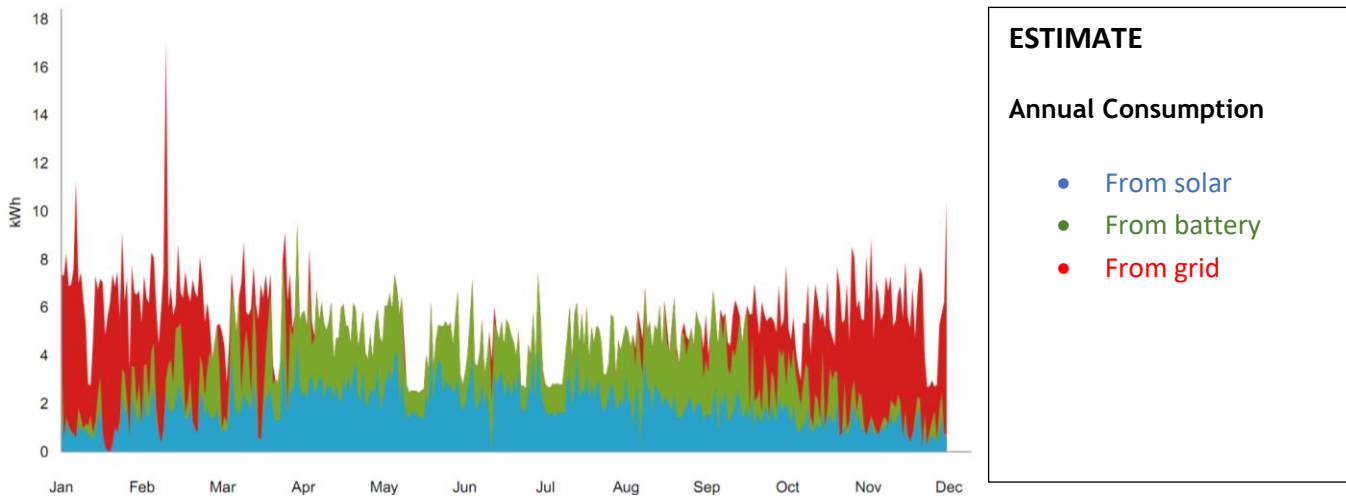
## PV PERFORMANCE ESTIMATE

Predicted System Performance for Solar PV Installations

The UK Micro-generation Certification Scheme (MCS) requires all certified companies to give an assessment of solar PV system performance based on the standard MCS procedure in Micro-generation Installation Standard MIS3002, Issue 4.0.

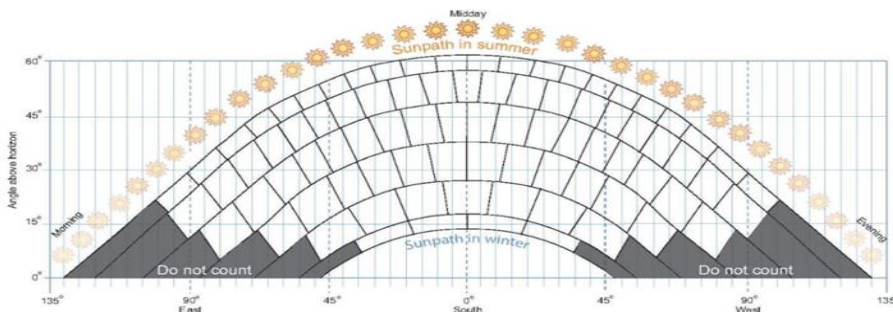
***The performance of solar PV systems is impossible to predict with certainty due to the variability in the amount of solar radiation (sunlight) from location to location and from year to year. This estimate is based upon the standard MCS procedure and is given as guidance only. It should not be considered as a guarantee of performance.***

Your system is predicted to produce 2,688 kWh.



To calculate this, we take:

- The size of your system (in kWp)
- How much solar radiation the system is estimated to get (the 'solar radiation input factor' or Kk for short). We use official tables to estimate this which take into account your postcode region, the inclination (or tilt) of your roof and its orientation (which direction it faces), and
- How much shading there is on the system (the 'shade factor' or SF), such as from surrounding trees, chimneys, shadow from nearby buildings). We will have estimated this using the sun-path diagram enclosed after the site survey. For the purpose of the estimate we have assumed that there is NO shading (shade factor).
- The calculation we do is: kWp (size of system) x Kk (solar radiation input factor) x SF (shade factor)



“This shade assessment has been undertaken using the standard MCS procedure - it is estimated that this method will yield results within 10% of the actual annual energy yield for most systems.”

<b>A. Installation data</b>		<b>3.0 kWp</b>		
Installed capacity of PV system – kWp (stc) kWp	SE 3.0 kWp			
Orientation of the PV system – degrees from South	SE 45°			
Inclination of system – degrees from horizontal	35°			
Postcode region	5W			
<b>B. Performance calculations</b>				
kWh/kWp (Kk) from table	SE 896			
Shade Factor (SF)	1			
Estimated annual output (kWp x Kk x SF)	2,680 kWh			
<b>C. Estimated PV self-consumption – PV Only</b>				
Assumed annual electricity consumption	3,500 kWh			
Assumed annual electricity generation from solar PV system	2,680 kWh			
Assumed occupancy archetype	Home all day	Home half day	Out all day	
Expected solar PV self-consumption (PV Only)	1,021	833	564	kWh
Grid electricity independence / Self-sufficiency (PV Only)	29%	24%	16%	
<b>D. Estimated PV self-consumption – with EESS</b>				
Assumed usable capacity of electrical energy storage device, which is used for self-consumption	9.4			kWp
	1,277	1,430	1,634	kWh
Expected solar PV self-consumption (with EESS)	2,365	2,339	2,285	kWh
Grid electricity independence / Self-sufficiency (with EESS)	68%	67%	65%	

“The Self Consumption estimate is valid only for the first year of the EESS installation.” It does not reflect the changing self-consumption as a result of degradation in solar pv output, battery degradation and changing behaviour.

“Important Note: 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 procedure and is given as guidance only for the first year of generation. It should not be considered as a guarantee of performance.

The solar PV self-consumption has been calculated in accordance with the most relevant methodology for your system. There are a number of external factors that can have a significant effect on the amount of energy that is self consumed so that this figure should not be considered as a guarantee of the amount of energy that will be self consumed.”

If you use some of the electricity that your panels generate in daylight hours, you will also save on your electricity bill because you will be able to use less electricity from your electricity supplier. (See ‘Getting the most out of your PV system’, above)

To work out how much you might get, we have estimated how many kWh your system will produce, we have assumed that you will export 50% of this, and that you will use 50% at home. [As the system only generates in daylight hours, you can only use its output in daylight hours. If you are not at home much of the day and/or cannot put appliances on timers to run during the day, you may use a smaller proportion of its output, maybe only 35%].