

Wedmore Solar Challenge 1000 Package from Sunlit Solar

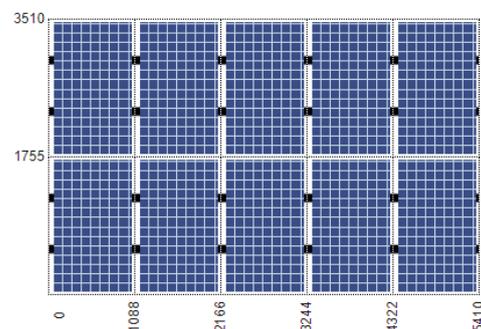
At Sunlit Solar, we are committed to working together with communities to help achieve their zero carbon goals. When a community comes together to order Solar arrays in bulk, we can provide a lower price but still with the high quality that our customers expect from us. This document provides a summary of the 3.7kw system that we can typically install for less than £4,000.



We pride ourselves on providing high-quality installations tailored to the best fit for each customer. We only use trained installers for our surveys, never a salesman, to ensure that our initial estimates are as accurate as possible. We appreciate that our Green Wedmore Community Package will not fit every requirement and some customers will want a bespoke system. In these cases, we will apply a 10% discount to our usual price. All of our materials are from well-established manufacturers with a history in renewable energy and technological development. They are installed to the highest standards possible by a team of dedicated professionals from the Sunlit Solar team.

We are a friendly, family run business with over 20 years' experience in the industry and we believe passionately in a future powered by the sun.

The package array below is based on a slightly off-South facing roof and has 10 panels. It is a 3.7kw system and the price, which is less than £4,000 includes all of the equipment detailed, installation, sign off and certification. The design of the array is as seen below with two neat rows of modules in portrait.



Array Design & Production Summary

3.70kW Canadian Solar (10x378w) + Solis – South 30°

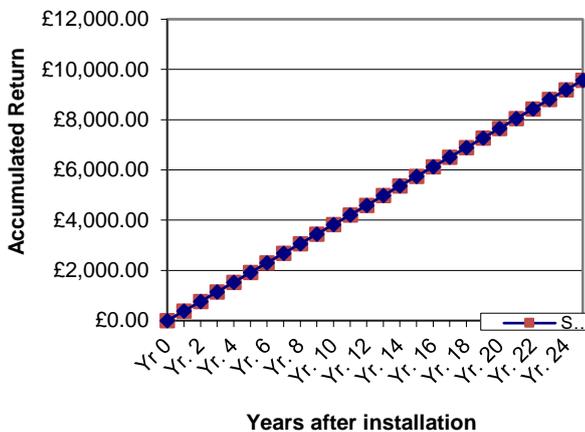
Estimated Production Level & Return

KWph PA	3389
Total Return 20 Yrs	£9,573.91
Av. Annual Return	£382.96
Annual R.O.I	10.06%
Year of payback	10
Cost (exc VAT)	£3,807.62
Cost (incl VAT)	£3,998.00

System Details

System Size (Kw)	3.7
Sq. M. of panel req.	19.27
Elevation	35°
Orientation	South -45°
Shading	Little

Cumulative Annual Return



As MCS certified installers, the levels of production in our estimate are based on the 2005 SAP calculations as stated in the MCS documentation. This means that all systems of an identical size should have the same levels of output.

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 on the government's Standard Assessment Procedure for energy rating of buildings (SAP) and is given as guidance only. It should not be taken as a guarantee of

Return Illustration

The illustrations above show the potential value of the electricity generated by your PV system under the terms of the Smart Export Guarantee which replaces the Feed-in tariff. Calculations are based on the following formula found in the SAP 2009 document "0.8 x kWp x S x Kpv" Where kWp is the size of the installed system, S is the radiation value and Kpv is the shading value.

System Size & Output

Installed system size	*3.70kWp
Estimated Annual system output (Gd)	*3389 kWh

Basic Payback Calculation

Proportion of electricity generated exported to grid (Ex) :	*50%
Standard import tariff at average unit price (It)	*£0.17
Proposed export tariff (Et)	*£0.055
Annual Value of feed in tariff	$V_f = G_d \times F_t$
Annual Value of electricity consumed	$V_c = G_d \times (100 - Ex) \times I_t$
Annual value of electricity exported	$V_e = G_d \times Ex \times E_t$
Total Value of electricity generated	$V_t = V_f + V_c + V_e$
Basic Payback	$P_y = Cost / V_t$

Equipment Summary

The Inverter

Solis Inverters are a division of Ginlong Technologies, which has been manufacturing Solar and Wind Generator Inverters and Wind Generators for over 20 years. Ginlong prides itself on offering world class design and quality, while retaining competitive pricing. The Solis inverters represent a well-respected, value priced brand of inverters and come with a five-year warranty as standard with an optional 10-20-year upgrade.



 solis

Manufacturer:	Solis
Rated Power:	3,600W
Weight:	9.5kg
Max DC Power:	4,000W
Max AC Power:	3,600W
Warranty:	5yrs

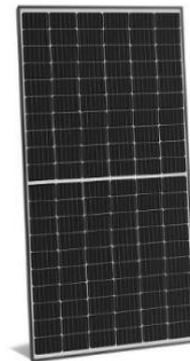
The Monitoring

We can also provide a Solis monitoring device with all the installation that allows remote monitoring of the production levels of the inverter and the system in its entirety to ensure that you are able to see how well your system is performing. (The monitoring is not included in the quote)



The Panels

These attractive modules are manufactured by Longi Solar a world leading manufacturer of high-efficiency monocrystalline solar cells and modules. Half-cut cell technology enables higher power and lower hot spot temperature because of low working current. Combining the best technology and design. The higher power output in restricted spaces, at pleasantly surprising prices gives you more "bang for your buck".



Manufacturer:	Longi Solar
Watts per panel:	370w
Cell Type:	Monocrystalline
Efficiency:	19.8%
Warranty at 25 yrs:	80%
Dimensions mm:	1775 x 1038 x 35
Weight:	20kg

Equipment List

Item #	Description	Quantity	Part Number	
Solar & Electrical Equipment				
1	Longi Solar 370W Himo4 Mono	10	MC4 LR4-60HPH-370m	
2	Solis 3.6kW Mini 4G Single Tracker 2x String	1	SOL-3.6-MINI-4G	
3	Dektite Lead Multicable Solar Flashing (Tiled or Slate)	1	DNLS10MB	
4	End Clamp+ 30 - 50mm Silver	8	REN-420081	
5	Middle Clamp+ 31 - 51mm Silver	16	REN-420082	
6	Wood screw pan head 6 x 80 (Bag of 21)	4	REN-900305-21	
7	Roof hook UK Flexible (without wood screw)	28	REN-420182	
8	VarioSole + End Cap 41X35 rail Single - Grey	8	REN-900246	
9	VarioSole+ Rail connector for rail 41 x 35 mm	4	REN-400531	
10	VarioSole+ Mounting rail 41 x 35 x 2250 mm	4	REN-400523	
11	VarioSole+ Mounting rail 41 x 35 x 3300 mm	4	REN-400524	
12	MC4 Pre terminated cable 2m (Pack of 2)	1	MC4-2M-2	
13	MC4 Connector Twin Pack (Kit 1)	1	MC4-CONN-2PACK	
14	4mm2 single-core DC cable 25m - Black	1	CABLE4-1-25	
15	K&N Single Phase AC Switch Disconnecter 25A	1	KG20-T203-GBA294	
16	K&N Single String DC Switch Disconnecter 25A 450V - 11A 920V	1	KG20-T104D	
17	Emlite 1-ph generation meter 100A (1000 pulse/kWh) incl. Cover	1	EM-ECA2	
18	PV on Roof and Hazard Labels Pack	1	BOHAZARD-SET	
Delivery				
19	Packaging and delivery			
Installation & Scaffolding				
20	Approximate Time: 2/3days			
Sign off				
21	DNO liaison, MCS Certification			
			Total Net Cost	£3,807.62
			VAT @ 5%	£190.38
			Total Cost with VAT @5%	£3,998.00

The price above of £3,998 can be further reduced to £3,948 as Sunlit Solar will issue a £50 voucher for every installation undertaken within the Parish of Wedmore. This voucher can be redeemed against the cost of your installation or you can donate it to Green Wedmore to help them fund future projects.

Please note that the pricing above is for standard installations only and is subject to availability. The price does not include any additional works that may be required in the case of a distribution board upgrade etc, or for non-standard roof types i.e., slate. We have also not included any non-standard liaising with or DNO pre application or DNO witness testing (if necessary).

Any bespoke estimates provided by Sunlit Solar will have a 10% price reduction from our normal prices and the £50 voucher will still be applicable. This offer may be reviewed from time to time.

Alternative Equipment

We have provided below some information on alternative modules and inverters. We can create PV systems within a typical home to generate from as little as 2kw to as much as 7kw (average annual use in the UK is typically 3,731kWh). **If you choose an alternative system or design, we will reduce our normal price by 10%.**

Alternative Inverters

The Solis Inverter used in the package above has a rated power of 3.6kw, but more powerful inverters are available from Solis depending on the array design that you decide upon.



Manufacturer: Solis
Rated Power: 5,000W
Weight: 13kg
Max DC Power: 5,800W
Max AC Power: 5,000W
Warranty: 5yrs



Manufacturer: Solis
Rated Power: 6,000W
Weight: 19.21kg
Max DC Power: 7,200W
Max AC Power: 6,600W
Warranty: 5yrs

More superior inverters are available from Solar Edge. These systems are fully optimized and combine sophisticated, digital control technology to achieve superior solar power harvesting and best-in-class reliability. The fixed-voltage technology ensures the solar inverter is always working at its optimal input voltage, regardless of the number of modules in a string, or environmental conditions. They have top of the range monitoring and can also come with an electric vehicle charger attached.



Manufacturer: SolarEdge
Rated Power: 3,680W
Weight: 7.8kg
Max DC Power: 5,700W
Max AC Power: 3,680W
Warranty: 12-25yrs



Manufacturer: Solar Edge
Rated Power: 4,000W
Weight: 10kg
Max DC Power: 6,200W
Max AC Power: 4,000W
Warranty: 5yrs

Alternative Modules

There is a wide range of solar panels and costs generally differ according to efficiency, power output and aesthetics. Monocrystalline solar modules are generally thought of as a premium solar product to polycrystalline modules. The main advantages of monocrystalline panels are higher efficiencies and sleeker aesthetics. Two other popular brands we supply are LG and JA Solar.



Manufacturer: JA Solar
Watts per panel: 315w
Cell Type: Monocrystalline
Efficiency: 19%
Dimension's mm: 1657xx996x35
Weight: 18.4kg



Manufacturer: LG
Watts per panel: 355w
Cell Type: Monocrystalline
Efficiency: 20.6%
Dimension's mm: 1700xx1016x40
Weight: 18kg

Accreditation

To ensure that we meet high standards in all of our installations Sunlit are fully accredited for the Micro-Generation Certification Scheme (M.C.S.) that allows us to accredit installations. To protect our customers further we are also members of the REAL assurance scheme that is designed to ensure that consumers of renewable energy solutions are sold to and supplied under safe guidelines.

