



# Your Solar Panel Quote

Quote for Chichester Council

★ Trustpilot 4.7 | Excellent

- Solar PV
- Battery Storage
- EV Charging
- Air Conditioning
- Roofing Repairs & Maintenance

MCS CERTIFIED

HIES

TRUSTMARK Government Endorsed Quality

★ Trustpilot 4.7 | Excellent

CRG Direct Ltd

YOUR REFERENCE NUMBER: PO19Chi  
Ref. No. [REDACTED]  
MCS Accredited Company: CRG DIRECT LTD  
MCS Accredited Number: NIC600310  
Registered Office Address: 21-23 East Street, Fareham PO16 0BZ  
Principal Trading Address: 172 Sea Front Hayling Island PO11 9HP  
Contact Details: Tel: 0330 133 2497/07955568287  
[admin@crgdirect.co.uk](mailto:admin@crgdirect.co.uk)  
Website: [www.crgdirect.co.uk](http://www.crgdirect.co.uk)  
HIES Membership Num [REDACTED]  
Trustmark: 2855428  
MCS Certification Number: [REDACTED]  
Project Reference: PO19Chi  
Client: Chichester Council  
Address: The Council House  
Postcode: PO19 1LQ  
Date: 24 Jul 23



Really nice to meet you and thanks for allowing me the opportunity to provide a quotation for your proposed Solar PV installation.

Please be advised due to high demand the equipment allocated to your install may not be available at the time of install, if so you will be given the option of waiting until the specified equipment is available or accepting a replacement manufacturer product of at least the same specifications.

We are obligated to provide you with certain Pre-Sale Information as part of our compliance with the Microgeneration Certification Scheme and in particular the Solar PV Standard MIS-3002 and MIS-3012 The Battery Standard including performance estimates and potential shade effects (if any).



All our work is backed by HIES, the Home Insulation and Energy Systems insurance backed guarantee and we are fully MCS accredited.

**OVERVIEW:**

**PANELS**

**INVERTER**

38XContact Details:

sunsynk Sunsynk 8k SG04LP3

Cost **£28423**

Electricity produced per annum approx 16489.15Kwh

**SYSTEM:**

Having visited your property we are able to fit 38 panels on your South facing roof and by using 425Watt panels creating a 16.15Kwh system. we are proposing to supply MCS approved perlight425 plm-4250m10a-44b 425watt panels. These panels achieve a higher cell efficiency which means more energy per square meter. Use of first-class materials result in an increased durability so they reach a higher reliability, assured by a 25 year performance guarantee.

These modules comply with the following international standards:

- IEC 61730 –Safety Qualification
- IEC 61215
- Carry CE mark

You are using 13560Kwh of electricity per year at 15p. We estimate your new system will produce 16489.15 Kwh of electricity per annum, giving approx' £2,023 worth of savings per annum.

The total cost of the system is £28423 MCS calculations predict you will use 67% of the energy produced.

**PERLIGHT Delta 425W**

**ELECTRICAL CHARACTERISTICS (STC)**

Module Type	425	395	415	435	455
Maximum Power (Pmax)	425	400	415	435	455
Open Circuit Voltage (Voc)	45.7	41.8	43.5	45.4	47.2
Short Circuit Current (Isc)	12.80	12.80	12.80	12.80	12.80
Maximum Power (Pmax) - 10°C	395	370	385	405	425
Maximum Power (Pmax) - 25°C	370	345	360	380	400
Maximum Power (Pmax) - 40°C	345	320	335	355	375

**ELECTRICAL CHARACTERISTICS AT 1000W**

Module Type	425	395	415	435	455
Open Circuit Voltage (Voc)	39.5	35.6	37.3	39.2	41.1
Short Circuit Current (Isc)	10.50	10.50	10.50	10.50	10.50
Maximum Power (Pmax) - 10°C	395	370	385	405	425
Maximum Power (Pmax) - 25°C	370	345	360	380	400
Maximum Power (Pmax) - 40°C	345	320	335	355	375

**MECHANICAL PARAMETERS**

Dimensions: 1612 x 1000 x 30 mm

Weight: 20.5kg

Front Glass: tempered glass, 3.2mm

Frame: anodized aluminium alloy

Cells: Mono-crystalline solar cells

Cell Orientation: 60/30° x 30

Mounting: 4mm aluminium

Labels: 2-year, 10-year, 25-year

Packaging: Mono-Pack, 10-packs/box, 20-packs/pallet

**TEMPERATURE PARAMETERS**

AMST: 40.3°C (STC)

Temperature Coefficient of Pmax: -0.27%/°C

Temperature Coefficient of Voc: -0.36%/°C

Temperature Coefficient of Isc: 0.05%/°C

**MAXIMUM RATINGS**

Maximum System Voltage (V): DC 1500V (IEC)

Surge Power Rating (SPR): 2500W

Maximum System Current (Imax): 13.5A (IEC) (15A IEC)

Temperature Range (°C): -40 ~ 85

Humidity Rating: Maximum Humidity: 95% RH (at 25°C) with no condensation

**DRAWINGS**

**IV CURVE**

The panels would be mounted on your roof using an aluminium mounting frame system certified by MCS complete with the required hooks, connectors and clamps to ensure a quality finish to your

**PERLIGHT Delta 425W**

**PLM-4250M10A-44B**

21.4% Efficiency

425W

30 YEAR Warranty

**KEY FEATURES**

- High efficiency
- Maximum power
- Low temperature coefficient
- Low light loss
- Low temperature coefficient
- Low temperature coefficient
- Low temperature coefficient
- Low temperature coefficient

**LONG TERM OUTPUT WARRANTY**

30 Year

**QUALITY MANAGEMENT SYSTEM AND PRODUCT CERTIFICATION**

CE, ISO 9001, ISO 14001, UKCA



## PRICE

For 16.15Kwh system

materials, labour and installation is **£28423**

### This price includes the following:

Panels, inverter, mounting frame  
Additional electrical work, cabling etc  
Delivery  
Fitting Cost  
ground mountings  
Roof Survey  
Generation Meter –a means of recording and displaying the total AC generation  
Handover Pack and MCS Certificate (if a valid Mpan is submitted)  
Guarantees and Warranties  
Registration with DNO  
2 x 8kw inverters  
  
Battery Storage System 5.3 Kw

6 Optimisers

## SCHEDULE FOR PAYMENT

1. Deposit of 15% upon placing of order.
2. Stage payment of 40% on agreed install date
3. Final payment of balance on completion of install and commissioning

Our estimated costs include the supply, delivery, installation, testing and commissioning of the solar array, including any works to the existing electrical consumer unit to enable the installation of the solar system. Our costs also include scaffolding as required while carrying out works on the roof.

All systems we supply are installed by professional fitters. An MCS Certificate will be provided.

### Account details:

Bank Natwest Sort code [REDACTED]  
Account name CRG Direct Ltd Account No [REDACTED]

Payment Terms		
Deposit:	Deposit (Maximum 15% of the total sum inc VAT) payable on confirmation of order	£4,263
Advance payment:	Further advance payment payable when an install date agreed 40% of the total sum inc VAT	£11,369
Balance:	Balance payable following final commissioning	£12,790

It is important that this quotation is read in conjunction with the full performance estimate that forms part of it in the following pages. If you require clarification on any point please do not hesitate to contact us

**All quotes valid for 14 days and subject to our terms and conditions**

## The inverter

The inverter we are proposing is a sunsynk Sunsynk 8k SG04LP3

The data sheet below shows the capabilities and limitations of your inverter, be advised if you have an inverter that does not support battery storage and at some point in the future you require battery storage you will need to upgrade your inverter.

Model	SYNK-8K-SG04LP3
Product Type	Hybrid Inverter
Enclosure	IP65
Ambient Temperature	-45°C - 60°C (>45°C derating)
Protection Level	Class I
<b>Charge Mode</b>	
Battery Voltage	48Vd.c (40Vd.c - 60Vd.c)
Battery Current	190Ad.c (max.)
AC Input Voltage	3L/N/PE 220/380Va.c, 230/400Va.c
AC Input Frequency	50/60Hz
AC Input Rated Current	12.1Aa.c
Max. AC Input Current	18.2a.c (max.)
Max. AC Input Power	8800W
Max. Apparent Output Power	8800VA
PV Input Voltage	550Vd.c (160Vd.c - 800Vd.c)
MPPT Input Voltage	200Vd.c - 650Vd.c
PV Input Current	13Ad.c + 13Ad.c
Max. PV Input Power	10400W
Max. PV Isc	17Ad.c + 17Ad.c
<b>Utility-Interactive</b>	
AC Output Voltage	3L/N/PE 220/380Va.c, 400Va.c
AC Output Frequency	50/60Hz
AC Output Rated Current	12.1Aa.c
Max. AC Output Current	18.2a.c (max.)
Max. AC Output Power	8800W
AC Output Rated Power	8800W
AC Output Power Factor	0.95 leading to 0.95 lagging
Max. AC Isc	75Aa.c
Battery Discharge Voltage	40Vd.c - 60Vd.c
Battery Discharge Current	190Ad.c (max.)
Battery Discharge Power	8000W
<b>Stand Alone</b>	
AC Output Voltage	3L/N/PE 220/380Va.c, 230/400Va.c
AC Output Frequency	50/60Hz
AC Output Rated Current	12.1Aa.c
AC Output Rated Power	8000W
Max. Continuous AC Pass-through Current	45Aa.c
Battery Discharge Voltage	40Vd.c - 60Vd.c
Max. Discharge Current	190A (max.)
Compliance	VDE-AR-N 4105:1028-11; DINVDE V 0124-100:2020-06; IEC/EN62109-1/2:2010; IEC/EN62109-1/2:2011



## PERFORMANCE ESTIMATION

Please see the following section which shows an estimate of the annual total generation of the proposed system calculated using the methodology recommended in the MIS-3002 specification and MGD 003 "Determining the Electrical Self-Consumption of Domestic Solar Photovoltaic (PV) Installations with and without Electrical Energy Storage".

Electricity Per Year – 16.15Kwh solar PV array.

### PV Performance Estimation

<b>A. Installation Data</b>	
Installed capacity of PV system - kWp (stc)	16.15Kwh
Orientation of the PV system - degrees from South	0
Inclination of system - degrees from horizontal	35°
Postcode region	SOUTHERN ENGLAND
<b>B. Performance Calculations</b>	
kWh/kWp (Kk) from table	1021
Shade factor (SF)	0 %
Estimated annual output (kWp x Kk x SF)	16489.15
<b>C. Estimated PV self-consumption-PV Only</b>	
Assumed occupancy archetype	Home all day
Assumed annual electricity consumption, kWh	13560
Assumed annual electricity generation from solar PV system, kWh	16489.15
Expected solar PV self-consumption (PV Only)	5606.311
Grid electricity independence /Self-sufficiency (PV Only)	41.3%
<b>D. Estimated PV self-consumption-with</b>	
Assumed usable capacity of electrical energy storage device, which is used for self-consumption, kWh	5.3
Expected solar PV self-consumption (with EESS) Kwh	11047.7305
Grid electricity independence /Self-sufficiency (with EESS)	81.5%
<b>E. Additional benefits from PV and</b>	
EESS capacity NOT used for self-consumption	0
Total energy discharged per annum approx (will degrade annually)	1855
Additional self-consumption from EV, heat pumps, diverters (only when present)	0



This quotation has been based on us being able to install your system as described without interruption. Should there be circumstances beyond our control which cause an interruption to the installation process we will discuss with you the implications of such a delay.

Should you decide to make any changes to the agreed installation within your cancellation period, we will produce another full quotation which takes into account these changes. You will be given a further cancellation period to consider this quotation.

Should you wish to make any changes to the agreed installation after your cancellation period has expired, again we will prepare a new quotation for you, but we reserve the right to charge for any reasonable costs we have incurred in working towards the original installation details.

If, during the installation process, we come across any situation that we could not reasonably be expected to foresee, for example, remedial electrical or building work, we will discuss with you the implications and costs involved in rectifying the problem.

Be aware that if you are having a battery system installed in your loft it is recommended that you install an appropriate smoke alarm linked to other smoke alarms in your property.

Should you request any changes after the installation process has begun that involve additional cost we will provide you with a quotation based on the daily or hourly rate of our installers.

Yours sincerely,

A black rectangular box redacting the signature of Lance Pearson.

Lance Pearson –Managing Director





**ANNUAL BENEFIT:**

Grid independence: Estimated annual electricity savings	£1,657.16	per year
Annual income generated from Smart Export Guarantee	£366.01	per year

Note: Smart Export Guarantee rates differ between energy providers and can change at their discretion. Please also be aware there is no current set minimum number of years of eligibility for the Smart Export Guarantee. The amount above is per annum based on your energy provider's current SEG rates.

**PAYBACK PERIOD**

**HOW LONG WILL IT TAKE FOR THE SYSTEM TO PAY FOR ITSELF?**

None of us can predict accurately what will happen in the future when it comes to inflation and electricity prices, so for the payback time we have assumed no increases in electricity prices. This is only a rough guide, as there may be maintenance costs to be considered.

To calculate how long the system will take to pay for itself, we can divide the total cost you have paid for the system and divide it by the estimated benefit you will receive each year.

Total installation cost:	£28423
Estimated annual benefit:	£2,023
Payback Period (Installation cost divided by estimated annual benefit):	14 Years

**Array Surface Area**

**#VALUE!**

MCS Wind Loading Calculation	
Wind Zone:	1-SU
Peak Pressure:	1,009Pa
Altitude Correction Factor:	NONE
Topography Correction Factor:	NONE
Peak Velocity Pressure:	1009Pa
Pressure Coefficient:	-0.5
Wind Pressure:	-681Pa

Snow Loading Calculation	
Snow Load:	500Pa
Altitude Correction:	NONE
Pitch Adjustment:	0
Adjusted Snow Load:	1000





**“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 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 this figure should not be considered as a guarantee of the amount of energy that will be self-consumed. It does not account for the impact of power diverters, electric space heating, electric water heating or electric vehicle charging.”

Where the shade factor (SF) is less than 1 Shading will be present on your system that will reduce its output to the factor stated. This factor was calculated using the MCS shading methodology and we believe that this will yield results within 10% of the actual energy estimate stated for most systems.

Important Note: The energy performance and benefits of EESS is impossible to predict with certainty due to the numerous functions a system can be programmed to perform. 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.

**Where occupancy archetype is not known (e.g. new build) then both sections C & D in the above table can be omitted (or marked as N/A).**

*Where another methodology is used:*

*“Shading will be present on your system that will reduce its output to the factor stated. calculated using the MCS shading methodology, but we can confirm that the system as quoted, taking into account the shading present, will deliver at least 90% of the energy (in kWh) as set out in this performance estimate”.*

*Where the site has been evaluated remotely, the following additional note shall accompany the above important note:*

*“This system performance calculation has been undertaken using 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.”*

## THE FIGURES

If the system performs in line with our predictions the following would apply, remember, we have assumed that you are Home all day We have assumed you will self-consume 81.5% of the energy produced by your PV system, as determined by the method set out in MGD 003, therefore exporting ###



Octopus Energy offer Outgoing Octopus which is described as a smart export tariff and their successor to the feed-in tariff (FIT). Perfect for homes with solar panels, battery storage, or any other way of sharing energy back to the grid. Outgoing Octopus comes in two flavours –Fixed or Agile. Outgoing Fixed guarantees 5.5p per kWh for every unit you export. Outgoing Agile matches your half-hourly prices with day-ahead wholesale rates, helping you make the most of the energy you generate.

<https://octopus.energy/outgoing/>

Here is a list of energy suppliers who provide SEG. Some are mandated and some have chosen to offer this.

<https://www.ofgem.gov.uk/publications/seg-supplier-list>

The Energy Saving Trust provide a Solar Energy Calculator to provide estimates for fuel bill saving and financial payments you may receive by installing a solar PV system.

<https://www.pvfitcalculator.energysavingtrust.org.uk/>

## **SEG and ELECTRICAL ENERGY STORAGE (Battery Stor**

If you've included an energy storage system in your renewables installation, you can still apply for SEG, but there might be a few rules, depending on your SEG contract. Your battery could store electricity from the grid (known as brown electricity) before exporting it later on.

Energy suppliers do not have to pay you for brown electricity exported to the grid but they may choose to do so.

Some suppliers may only pay the SEG for green electricity, ie the electricity your low-carbon system generates itself. If this is the case, the supplier may ask you to show how you separate out the green electricity you generate from any imported brown electricity.

## **PITCHED ROOF WORK**

On all roof types there should not be a need to drill tiles.

On slate roofs it is sometimes necessary to cut a portion of the slate out or remove a slate so that the surrounding slates sit back down, the area that would be removed would maintain its waterproof integrity through the use of lead flashing kits.

In the case of tiles a small channel is cut out on the underside to allow the tile to sit flush with the roof again, the integrity of the tile is maintained.

The mounting anchors are fixed to the roof joists using appropriate fixings and the tile or slate sits back in place or where necessary flashing kit used.

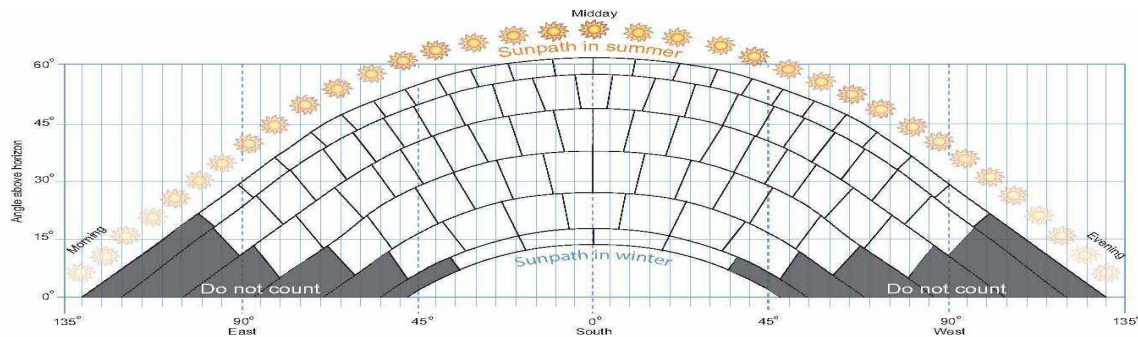
Whenever any roof covering is modified the water proof integrity is always maintained in the most appropriate way possible, with little or no visual impact.

Decra roofing installation, Metasole+ brackets or Solar limpet fixings will be used drilled direct into roofing material through the tiling these are an MCS accredited fixing

The link has more information on the product

<https://www.renusol.com/en/solar-panel-mounting/metal-roof/ms-msp/>





**Sun Path Chart**                      **0 %**

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 yield or most systems. Where there is an obvious clear horizon and no near or far shading, the assessment of SF has been omitted and an SF value of 1 used.

### SMART EXPORT GUARANTEE (SEG) TARIFF

The Smart Export Guarantee is a support mechanism designed to ensure small-scale generators are paid for the renewable electricity they export to the grid. It has been in place since 1<sup>st</sup> January 2020.

Under the scheme, all licensed energy companies with 150,000 or more customers must provide at least one SEG tariff. Smaller suppliers can offer a tariff if they want to on a voluntary basis. All suppliers can also choose to offer other means of making payments for exported electricity, separate to the SEG arrangements.

The technology and installer used by householders must be certified under the Microgeneration Certification Scheme (MCS) or equivalent and the solar PV system must be grid connected. Energy suppliers may ask for the MCS certificate to prove the installation meets the standard which we will provide for you.

You also need a **registered Smart Meter** that records your exported electricity, even if you're not signing up to a smart tariff.

SEG payments are not linked to other financial support around renewable energy installations. This means that, if eligible, you could combine SEG payments with other financial support. In Scotland, for example you could combine SEG payments with the Home Energy Scotland loan.

You will not be able to receive SEG from more than one supplier.



## **STRUCTURAL STABILITY**

Most roofs are more than adequate to cope with a solar array being mounted as the weight of the load is spread across the large surface area. A wind and snow loading calculation has been provided within this quotation.

PV Systems should not adversely affect the weather tightness or structural integrity of the building to which they are fitted. The system should be designed and installed to ensure this is maintained for the life of the system.

**IMPORTANT:** Where the existing roof covering is under warranty, then the roof warranty provider should be consulted to establish if warranties will be invalidated by the installation.

*Where an existing warranty may be invalidated by the proposed installation, we shall notify the customer in writing and obtain explicit written agreement from the customer if the installation is to proceed.*

## **NOTIFICATION TO THE DISTRIBUTION NETWORK OPERATOR (DNO)**

We will carry out the necessary liaison regarding connection to the local grid, and completion of the G98 or G99 paperwork.

## **SAFETY AND DURABILITY**

Suitable and sufficient risk assessments shall be conducted before any work on site commences and an installation method statement will be carried out and issued prior to the commencement of any work and our installers will have carried out relevant health and safety training courses in line with the type of work.

As an MCS contractor we shall be able to demonstrate that the installation of the modules has not affected the fire performance of the roof such as mounting above an existing non-combustible roof covering (pitched roofs).

## **INSURANCE**

Our advice with reference to your building insurance is that you do need to inform your insurers, however most insurers will add solar panels to your policy at no additional cost. (It will be down to the insurance company as to how they view this).

## **MAINS POWER FAILURE**

If there is a power cut or the mains power is switched off deliberately the solar electric system will automatically disconnect from the main supply. This means that an engineer working on the electrical system will be in no danger. When the power is switched back on the system will automatically connect.



It is part of MCS (Micro Generation Certification Scheme) rules and regulations that the roof offers the same or better waterproofing once the contractor has left site.

We should be able to demonstrate that the installation of the modules has not affected the fire performance of the roof. This can be demonstrated by mounting the panels above an existing non-combustible roof covering (pitched roofs).

## **PLANNING CONSENT, PERMISSIONS AND APPROV**

We shall ensure your building is assessed by a competent professional experienced in solar photovoltaic systems to ensure that it is suitable for the installation and, by undertaking the proposed works, the building's compliance with the Building Regulations (in particular those relating to energy efficiency) is not compromised. Where work is undertaken that is notifiable under the Building Regulations we shall make this clear to you and who shall be responsible for this notification.

We are registered with a Competent Persons Scheme (CPS) and able to self-certify our work.

It is not a requirement to contact your local planning authority and advise them of your intention to install a solar electrical system. Legislation changed in April of 2008 so that now, in most cases the installation will be considered a 'permitted development'; however in some cases planning permission may be required, usually in a conservation area or on a listed building. It is advisable if you are in any doubt for you to just check and clear this before your installation.

On a pitched roof the solar PV array must not protrude more than 200 mm above the roof line.

On a flat roof the highest part of the solar PV array must be less than 1 meter higher than the highest part of the roof (excluding any chimney).

The PV array must be sited more than 1 metre away from the external edges of the roof and as far as practicable the PV array should be sited to minimise the effect on the external appearance of the building.



You should also consider how any future building work that takes place on your property would affect the shading of the solar panels.

## **ENVIRONMENT**

We recycle most of the waste materials from your installation. We also endeavour to keep our travelling to a minimum by carrying out the works over as few journeys as possible.

## **WARRANTIES**

Your equipment will be guaranteed by its manufacturer, but you should contact us in the first instance if anything appears to be operating incorrectly.

In addition to the product guarantees, our work will be covered by a workmanship warranty. This workmanship warranty will be transferable to the new legal owner of the property if it is sold during the warranty period.

As signatories to a Consumer Code we are required to ensure that should we cease trading, due to receivership, administration or bankruptcy, that the workmanship warranty that we have in place for your installation will still be honoured.

When you confirm the order and we have received any requested deposit, we will register your name, address and the total value of the contract, within two working days on the Job Registration System.

A leaflet explaining the scheme is enclosed. If you are not content for us to register your details in this way, please let us know. The insurance provider will send the policy documents direct to you. This policy will be at no additional cost to you.

Should we cause any damage, either to installed equipment or to your property we will rectify such damage without charge to you.

## **THE HIES CONSUMER CODE**

We are signatories to the HIES Consumer Code, membership number and the membership number is displayed on the bottom of our letterhead. This document is prepared in accordance with the HIES Consumer Code.

A leaflet describing the HIES Consumer Code is at the link below.

<https://www.hiesscheme.org.uk/regulation/hies-scheme-rules-code-of-practice/>



## INSTALLATION

The Installation will be carried out to comply with all applicable legislation and directives and the necessary standards including MCS installation requirements, Electrical Safety, Quality and continuity Regulations 2002 and the Consumer Code.

Once the installation is complete you will be issued with a handover file consisting of all test documentation, user instructions, circuit diagrams, Energy Performance Certificate, warranties and contact details.

Where work is undertaken that is notifiable under the Building Regulations it shall be made clear to the customer who shall be responsible for the notification.

Where responsible for notification under the Building Regulations, the MCS Contractor shall ensure notification has been completed prior to handing over the installation.

*Note: Where notification under the Building Regulations is to be undertaken by others (e.g. the developer of a new-build project) then it is permissible for the MCS Contractor to handover the installation immediately following commissioning.*

*Self-certification, in lieu of building control approval, is only permitted where installation and commissioning is undertaken by an entity registered with a Competent Persons Scheme (CPS) approved by the relevant government department for the scope of work being undertaken.*

### ADDITIONAL MEASURES THAT MAY BE BENEFICIAL TO THE PERFORMANCE AND DURABILITY OF THE SYSTEM

Cleaning of your Solar Panels. The first thing you want to do is to check with your solar panel manufacturer. They might have specific recommendations for cleaning. There are solar panel cleaning companies available and so check your local area for details.

Solar panels can become incredibly hot in sunshine. Either clean your solar panels in the morning/afternoon, or pick a relatively cool day. Warm water and soap –no other special equipment is needed. Clean the surface of the solar panel with a soft cloth or sponge. You do not have to clean the wiring underneath.

The installation of solar panels can provide shelter for nesting birds with pigeons nesting under solar panels and so you may want to consider specific bird-proofing measures designed to solve this problem which are available.

Take care to as airborne dust particles, sticky tree and plant sap, lichen, soot and bird droppings are just a few of the things that can contribute to a build-up of dirt on your panels. Accumulation creates shading and will prevent daylight reaching the cells of the panels.

The solar panels we install for you will be positioned to gain the maximum amount of sunlight. However, you should be aware that the future growth of trees, large shrubs and their spreading foliage could cause the panels to be shaded, thereby reducing the performance of the system.



1. We warrant to you that the installation will be carried out by appropriately qualified and trained personnel. They will use a level of reasonable care and skill as it is reasonable for you to expect. The warranty period for the installation services shall be 2 years from completion of the installation services.

2. If you make a valid claim about our service in accordance with our terms and conditions, we may arrange for the relevant products to be reinstalled by any of our registered or approved installers, or refund to the customer the charge for the relevant part of the installation service (or a proportionate part of such charge).

If the product has been installed by us and has been properly used and maintained throughout the warranty period:

If you have informed us of the alleged defect within the warranty period and within a reasonable period of discovery.

4. You will promptly provide all information and support including access to site and services that are reasonably necessary to enable us to evaluate any alleged defect and to perform its obligations under this warranty.

You will ensure that all premises, plant, power, fuel support services and other inputs that you provide for the installation and use of the products are reasonable, are fit for purpose and will be properly used and provided.

5. Any dispute as to whether a defect is covered by this warranty shall be immediately referred at the request of either party to the Home Insulation & Energy Systems (HIES) Contractors Scheme as detailed in Principle 8 and if necessary Principle 10 of The Home Insulation & Energy Systems (HIES) Contractors Scheme.

6. Where we have installed a system in a property that is sold within the warranty period the warranty will pass to the new legal owner of the property. It may not be transferred to or exercised by any third party.

7. This warranty is governed by English law and the English courts or by the law and the courts governing where your property is, if this is outside England or Wales.

8. Most products supplied by us come with the benefit of a manufacturer's product guarantee. Where a claim in respect of any of the products is notified to us by you in accordance with our terms and conditions, we will liaise with the manufacturer and use all reasonable endeavours to secure a replacement of the product (or the part in question), or a refund of the price of the product (or a proportionate part of the price). This warranty does not replace or limit your legal rights to bring a claim against us as the retailer of the goods supplied



## COMPLAINTS

We hope you won't have any reason to complain about any aspect of our service. But if you do, please contact us.

You may contact us by telephone, letter or e mail, and you will find our contact details on this quotation. We will acknowledge and attempt to resolve your complaint promptly. Where we need to investigate the complaint, we will report to you our progress on any investigation within seven working days.

If we are unable resolve your complaint, you may be able to complain to HIES. You can read about this here:

<https://www.hiesscheme.org.uk/what-we-do/alternative-dispute-resolution/=how-to-complain-and-who-to->

**VAT-** This is charged at the reduced rate of 0% on the installation of solar panels in, or in the curtilage of residential accommodation.

**DELIVERY** - Approximately 2 to 3 weeks from order, subject to availability of components. To be confirmed at the time of order.

**PRIVACY** - Using Your Personal Information

1. We will use the personal information you provide to us in accordance with the Data Protection Act 2018 ,General Data Protection Regulations and more specifically to:

- a) Supply the Goods and Services to you
- b) Process any payments that you make for the Goods and Services, including if necessary conducting credit reference
- c) Register your installation with any relevant bodies, including your deposit protection and insurance backed guarar
- d) Address any concerns or complaints that you have about the Goods and Services, including liaison with HIES and Q/

Where you have indicated that you would like to receive further information on offers, products and services, you can change this at any point by contacting us.

## CANCELLATION RIGHT

Your cancellation rights will vary depending on whether the contract you agree with us is considered to have been agreed on or away from trade premises.

For contracts considered to have been agreed on trade premises you will be given a fourteen day cancellation period from the day that the contract was signed.

For contracts considered to have been agreed away from trade premises, your cancellation rights are as set out in the Consumer Contracts (Information, Cancellation and Additional Charges) Regulations. These regulations give you the right to cancel from the time that the contract is signed until fourteen days after the delivery of the last of the goods.

If you want more than 15 kilowatt-hours of storage, two Luna2000s can be installed in parallel to provide up to 30 kilowatt-hours of storage. More modules won't improve the power output beyond 5 kilowatts:

Each 5 kilowatt-hour Battery Module operates separately from the others. This means if a fault develops in one module the others can still be used until the defective unit is repaired or replaced.

The independent operation makes it easy to add an extra module to expand storage capacity or compensate for capacity deteriorating over time. As each battery module is covered by its own warranty, adding a new one to an existing system won't create a warranty issue.

The Battery is water-resistant and can be installed outdoors. Its IP rating—or Ingress Protection rating—is IP66. This indicates it's dust-tight and able to resist jets of water from all directions. This means if your idiot cousin decides to hose down your home battery, it should be fine.

Note: The useable storage capacity could be expressed in terms of the time. Use the formula (10 x battery capacity in amp hours) divided by (appliance load in watts)

*Warranties applying to the system and its storage capacity (degradation, number of cycles, energy throughput etc.)*

*How the EESS indicates its current usable capacity or state of health (thus indicating if it is ending its life or the storage capacity is below the warranted capacity).*

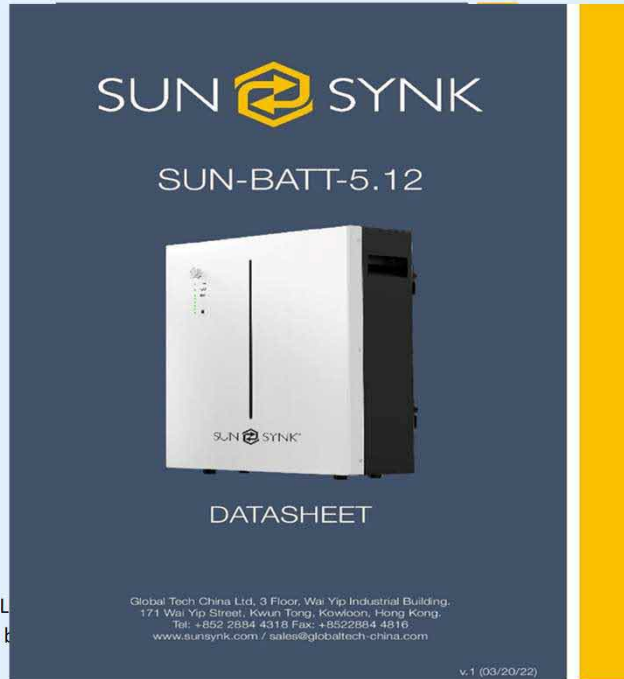
*End of life, recycling, arrangements should be carried out in accordance with the Waste Electrical Electronic Equipment (WEE, 2012/19/EU) and the Battery Directive (2006/66/EC).*

Where the EES is to be remotely controlled by third parties, the terms of that arrangement including the terms applying should the consumer wish to terminate the arrangement and assume full control of their system. Penalties for early termination shall be clearly stated.

If the EESS can be controlled to respond to time of use electricity tariffs and, if so, how it shall be highlighted whether this is a manual process (manually setting charge and discharge times) or can be automated (such that charge and discharge times change automatically when tariffs change).

## BATTERY STORAGE (EESS)

The system is a off-the-shelf Packaged EESS. The battery is capable of charging from, storing and subsequently discharging electrical energy from a domestic solar PV system. and is to be installed within the same domestic electrical system as the solar PV system and loads i.e. on the domestic side of the utility meter. The electrical energy storage is operated for provision of increasing self-consumption. This will be installed as new and not been previously used.



The battery type is L  
precautions should be

special

The system size is 5.3Kwh and if the battery develops a problem you must inform the manufacturer immediately see data sheet for all specifications

The battery will be situated in the TBC

The useable storage capacity in kilowatt-hours (kWh) accounting for the maximum allowable depth of discharge

Battery Modules can be stacked up to three high and a Power Module that controls them is placed on top. When connected to a compatible inverter this gives the following energy storage capacity and continuous power output:

- 1 Battery Module = 5 kilowatt-hour of energy storage and 2.5 kilowatts of power output.
- 2 Battery Modules = 10 kilowatt-hours of energy storage and 5 kilowatts of power output.
- 3 Battery Modules = 15 kilowatt-hours of energy storage and 5 kilowatts of power output.

Note: if the inverter is under 5 kilowatts the power output will be limited by the inverter's capacity.

If you wish us to begin work within the cancellation period you must give us express permission, in writing, to do so.

You can find full details of your cancellation rights within the contract we will ask you to sign and also on the Cancellation Form we will issue to you.

## CONTRACT TERMS

We have enclosed a copy of our contract with this quotation. Please read this carefully, and as always, please contact us if you require further clarification.

### Customer Declaration :

I confirm that I wish to continue with the installation process with this quotation, and have read and accept the terms and conditions outlined. I confirm that I have obtained any planning permission for the proposed works (if applicable) and that there are no restrictions in relation to my property being in an area of outstanding natural beauty or conservation area. I would like to proceed with the installation at my property and I confirm that I accept the Terms and conditions and agree to the costs set out in this quote.

Name:	Chichester Council
Signature:	
Date :	

### The next steps

**Below are the steps both of us will take to give you a complete solar system under your control.**

Check the quotation ensure everything suits your needs and you are happy with the costings

Sign the attached agreement and return to us with your deposit of 15% **£4,263.45**

Once we have an install date we will contact you and take the second payment of 40% **£11,369.20**

Day of installation; Teams arrive and brief you on the plan then install and commission your system, install team will then demonstrate and answer any questions you may have on your system. Final payment of the outstanding balance is due at this point.

Within 14 days of install post installation pack warranties, product information and post install support certification delivered to you.

You Your surveyor was: **Mike**

Many thanks for your time and for your interest in our products.

