

Prepared by: ben@solarpowergb.com For: Any

+(44)01376440000

ben@solarpowergb.com

Solar Power (GB) Ltd 21A Craft
Centre, BRAINTREE

Quote #:

Valid until:



Solar Energy System Proposal

Dear Any,

Thank you for the opportunity to present your Solar Energy System Proposal.

Best Regards,

ben@solarpowergb.com

Solar Power GB Ltd

Solar Power GB Ltd

Unit 21b Blake House Craft Centre
Blake End, Rayne, Essex, CM77 6SH

Phone: 01376440000

Email: info@solarpowergb.com

Web: www.solarpowergb.com

Scan QR code on your phone to
access the on line proposal.



Recommended System Option

10.44_{kW}

System Size

£3,325

Estimated Annual
Electricity Bill Savings

£15,000

Total System Price

£15,000

Net System Price

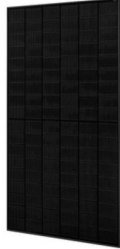


Your Solution

JAM54D41 LB

10.440kW of Solar Power
24 x JAM54D41-435/LB
435 Watt panels
25 Year Product Warranty & **30 Year** Linear Performance Warranty
9,830kWh per year

JA SOLAR



5G RHI Hybrid Inverter - 3PH DC (5-10kW)

10kW of Inverter Power
SOLIS
1 x RHI-3P10K-HVES-5G
10.0 -year Standard Warranty



Battery

PylonTech
7.1 kWh Total Battery Storage
1 x FORCE H2 7.1kWh

emlite 3-ph generation meter EMP.az, 100A (1000 pulse/kWh)

None
1 x EMP1-AZ

Powerwall Connect

Powerwall Connect - All in One Cable Solution - 10 Meters
1 x POWERWALL CONNECT 10m

Wood screw pan head 6 x 80 (Pack of 21)

None
1 x REN-900318-21

End Cap RIGHT / LEFT (black) 50x37

End Cap RIGHT / LEFT (black) 50x37
6 x 920043

Variosole Roof Hook RH Flat

Variosole Roof Hook RH Flat
72 x 420172

Middle clamp+

Middle clamp+
42 x 420082

End clamp+

End clamp+
12 x 420081

VS+ Rail connector 41 x 35

VS+ Rail connector 41 x 35
12 x 400531

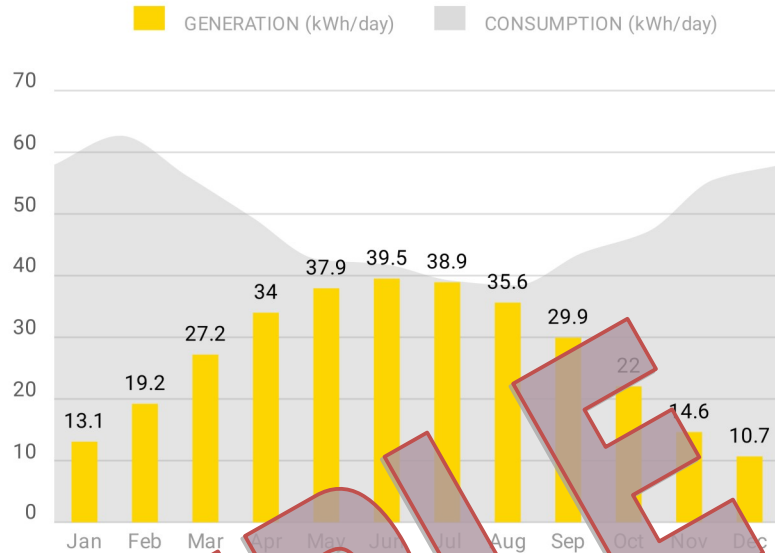
VS+ Mounting rail 41 x 35 x 4400 mm

VS+ Mounting rail 41 x 35 x 4400 mm
13 x 400525

Warranties: 25 Year Panel Product Warranty, 30 Year Panel Performance Warranty, 10 Year Inverter Product Warranty, 10 Year Battery Product Warranty

System Performance

55%
Energy From Solar



System Performance Assumptions: System Total losses: 0%, Inverter losses: 0%, Optimizer losses: 0%, Shading losses: 0.3%, Performance Adjustment: 0%, Output Calculator: MCS. Panel Orientations: 24 panels with Azimuth 153 and Slope 40°

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. 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 will be self-consumed.

Shading will be present on your system that will reduce its output to the factor stated. This factor was NOT 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.

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.

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.

[EESS capacity not used for self-consumption] Storage capacity of the battery - assumed usable capacity of battery [Total energy discharged per annum] Assumed usable capacity of battery x 730 [Additional self-consumption] Estimated annual output (Section B) x self-consumption rate with battery as a % (no higher than 95%) - Expected solar PV self-consumption (with EESS) (Section D)

A. Installation data

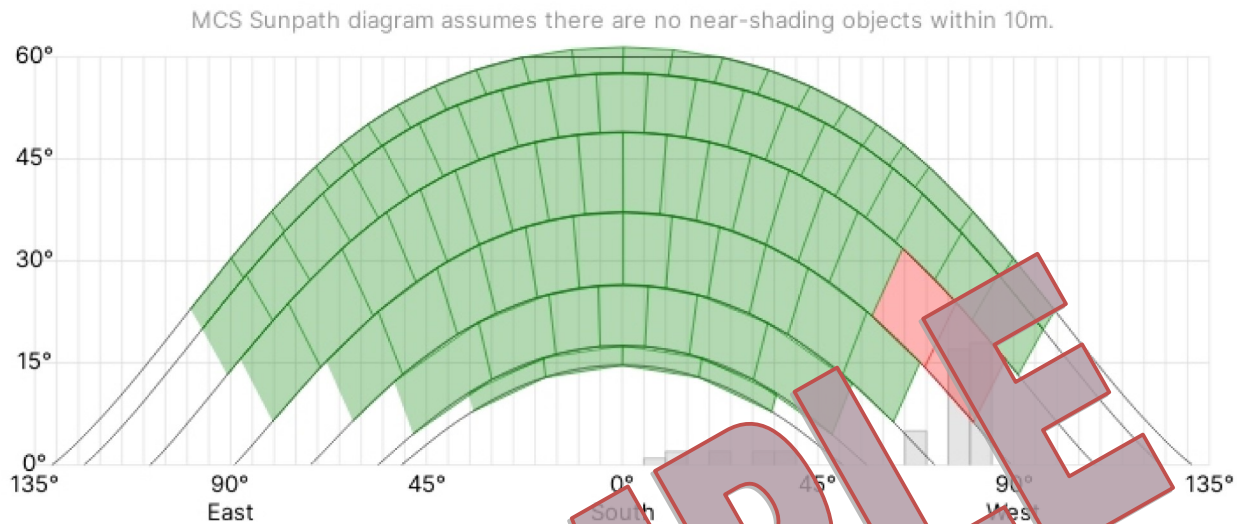
Installed capacity of PV system - kWp (stc)	10.440	kWp
Orientation of the PV system - degrees from South	Group 1: 24 panels with Orientation: 25°	°
Inclination of system - degrees from horizontal	Group 1: 24 panels with Tilt: 40°	°
Postcode region	12	

B. Performance calculations

kWh/kWp (Kk) from table	Group 1: 944	kWh/kWp
Shade Factor (SF)	0.997	
Estimated annual output (kWp x Kk x SF)	9,830	kWh
C. Estimated PV self-consumption - PV Only		
Assumed annual electricity consumption, kWh	18,000.00	kWh
Assumed annual electricity generation from solar PV system, kWh	9,830	kWh
Expected solar PV self-consumption (PV Only)	8,513.58	kWh
Grid electricity independence / Self-sufficiency (PV Only)	47.30	%
D. Estimated PV self-consumption - with EESS		
Assumed usable capacity of electricity energy storage device, which is used for self-consumption, kWh	6.39	kWh
Expected solar PV self-consumption (with EESS)	9,340.96	kWh
Grid electricity independence / Self-sufficiency (with EESS)	52.0%	%
E. Additional benefits from PV and EESS		
EESS capacity not used for self-consumption	0.71	kWh
Total energy discharged per annum	4664.70	kWh
Additional self-consumption for EV, heat pumps, diverters (only when present)	0.00	kWh

Sunpath Diagram

Disclaimer: The shade mask mapped onto the sunpath diagram is based off the field of view from a point in the center of the array. This means that the shade mask shown will only capture the shading experienced at the array center point, and will not reflect the shading casted onto other locations on the array.



Environmental Benefits

Solar has no emissions. It just silently generates pure, clean energy.



Each Year

55%
Of CO₂, SO_x & NO_x

2 tons
Avoided CO₂ per year

Over System Lifetime

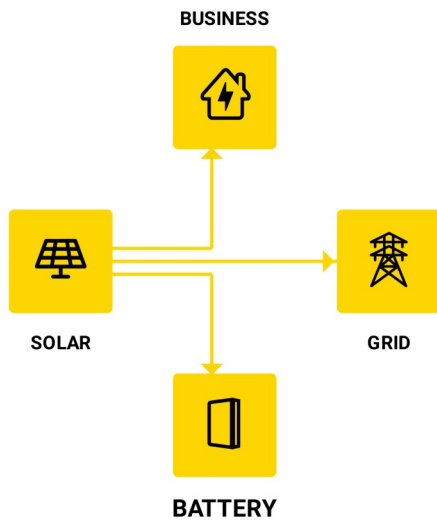
74,409
Car km avoided

478
Trees planted

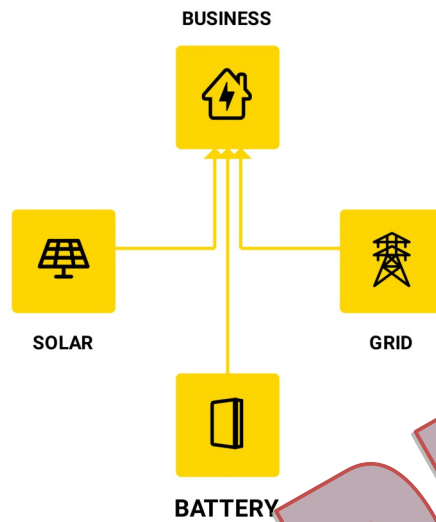
53
Long haul flights
avoided

How your system works

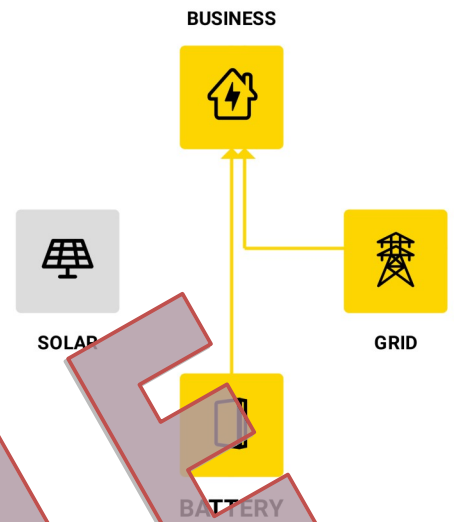
Generating Excess Solar



Partially Offset Usage



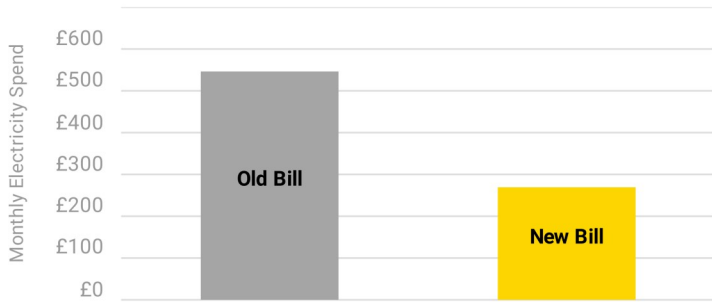
Night



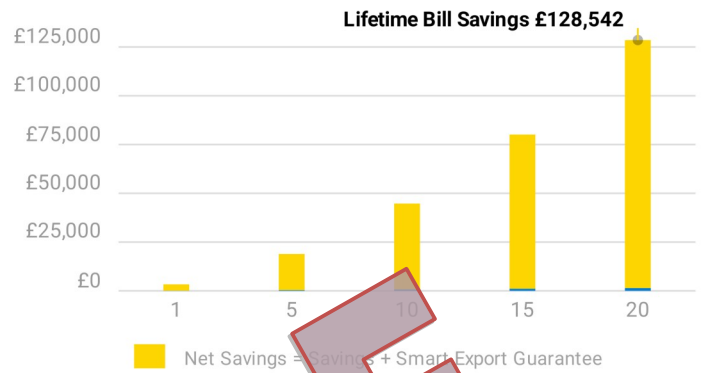
EXAMPLE

Electricity Bill Savings

First Year Monthly Bill Savings



Cumulative Bill Savings



Month	Solar Generation (kWh)	Electricity Consumption before solar (kWh)	Electricity Imported after solar (kWh)	Electricity Exported after solar (kWh)	Export Credit (£)	Utility Bill before solar (£)	Utility Bill after solar (£)	Estimated Savings (£)
Jan	405	1,798	1,393	0	0	651	589	142
Feb	538	1,755	1,219	3	0	634	446	188
Mar	843	1,744	913	17	3	632	339	293
Apr	1,020	1,744	514	35	5	540	196	345
May	1,176	1,322	245	62	9	484	98	386
Jun	1,185	1,256	188	95	14	460	72	388
Jul	1,206	1,216	120	140	21	447	43	405
Aug	1,104	1,191	179	95	14	439	70	369
Sep	838	1,310	457	26	4	480	177	302
Oct	683	1,161	788	13	2	533	296	238
Nov	439	1,667	1,230	2	0	605	451	153
Dec	331	1,796	1,465	0	0	650	534	116

Your projected energy cost is calculated by considering a 7.0% increase in energy cost each year, due to trends in the raising cost of energy. This estimate is based on your selected preferences, current energy costs and the position and orientation of your roof to calculate the efficiency of the system. Projections are based on estimated usage of 18000 kWh per year, assuming Custom Tariff Electricity Tariff.

Your electricity tariff rates may change as a result of installing the system. You should contact your electricity retailer for further information.

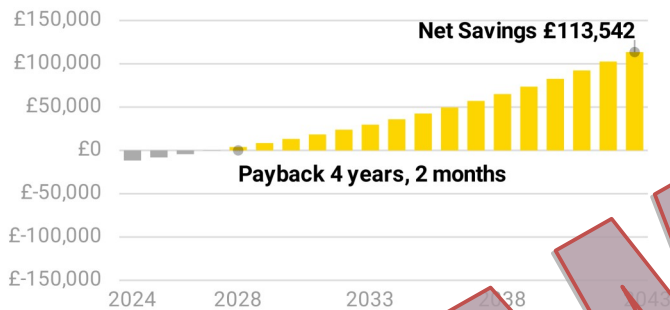
Proposed Tariff Details - Custom Tariff	
Energy Charges	
rate 0 All Day	£0.35 / kWh
Smart Export Guarantee	
rate 0 All Day	£0.15 / kWh

Fixed Charges	
Fixed Charge	£0.70 / day

Net Financial Impact Cash

$$\begin{array}{rclcl}
 £128,542 & - & £15,000 & = & £113,542 \\
 \text{Utility Bill Savings} & & \text{Net System Cost} & & \text{Estimated Net Savings}
 \end{array}$$

Cumulative Savings From Going Solar



Annual Savings From Going Solar



Estimates do not include replacement costs of equipment not covered by a warranty. Components may need replacement after their warranty period. Financial discount rate assumed: 6.75%

Quotation

Payment Option: Cash

24 x JA Solar 435 Watt Panels (JAM54D41-435/LB)

1 x RHI-3P10K-HVES-5G (SOLIS)

1 x FORCE H2 7.1kWh (PylonTech)

1 x EMP1-AZ, 1 x POWERWALL CONNECT 10m, 7 x REN-900318-21, 6 x 920043, 72 x 420172, 42 x 420082, 12 x 420081, 12 x 400531, 13 x 400525

Total System Price

£15,000.00 Excluding £0.00 VAT

Purchase Price

£15,000.00 Including £0.00 VAT

Quote Acceptance

I have read & accept the terms and conditions.

Signature

Name

Date