

Prepared by: Solar Installation team For: Sandy

01777 712616

solardeals@icsrenewables.com

Wales golf, Catsash Road off,
Caerleon, Cat's Ash

Quote #: 7738333

Valid until: None



Solar Energy System Proposal

Dear Sandy,

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

Best Regards,

Solar Installation team

ICS Renewables Ltd

Recommended System Option

10.01_{kw}

System Size

£1,626

Estimated Annual
Electricity Bill Savings

£24,000

Total System Price

£24,000

Net System Price



Your Solution

Solar Panel

10.010kW of Solar Power
22 x AIKO-A455-MAH54Mb/2S
455 Watt panels
25 Year Product Warranty & **Year** Linear Performance Warranty
9,079kWh per year

Battery

Fox ESS
5.18 kWh Total Battery Storage
1 x EP5

Power Optimizer

1000 W Power Optimizer for Europe
1 x S1000 [Power Optimizer]

FoxESS H1 Hybrid Inverter

5kW of Inverter Power
Fox ESS 1 x H1-5.0-E
10 Years Warranty



Power Optimizer

500W Power Optimizer
1 x BRC Power Optimizer M500/14

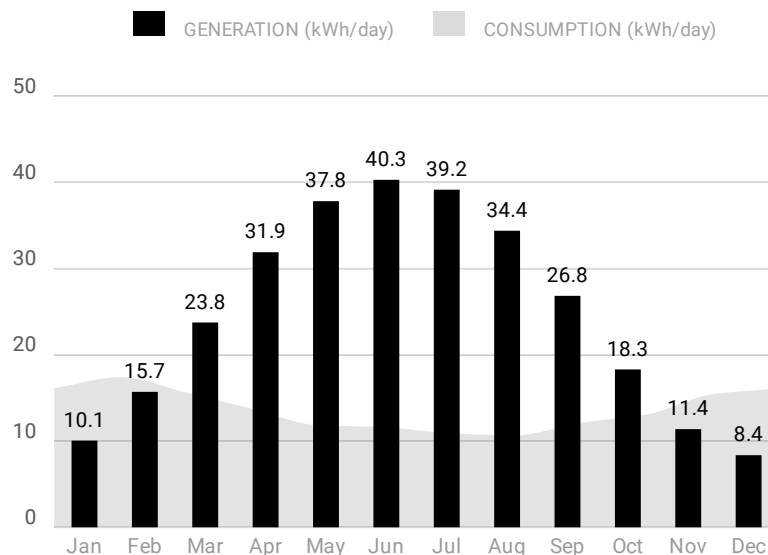
EV Charger

22 kW Three Phase Tethered Black EV Charger
1 x ZAPPI-2H22TB-G

Warranties: 25 Year Panel Product Warranty, 30 Year Panel Performance Warranty, 5 Year Battery Product Warranty

System Performance

182%
Energy From Solar



System Performance Assumptions: System Total losses: 0%, Inverter losses: 0%, Optimizer losses: 0%, Shading losses: 0%, Performance Adjustment: 0%, Output Calculator: MCS. Panel Orientations: 22 panels with Azimuth 159 and Slope 20.

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. 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.

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)	10.010	kWp
Orientation of the PV system - degrees from South	Group 1: 22 panels with Orientation: 20 °	°
Inclination of system - degrees from horizontal	Group 1: 22 panels with Tilt: 20°	°
Postcode region	5W	
B. Performance calculations		
kWh/kWp (Kk) from table	Group 1: 907	kWh/kWp

Shade Factor (SF)	1.000	
Estimated annual output (kWp x Kk x SF)	9,079	kWh
C. Estimated PV self-consumption - PV Only		
Assumed occupancy archetype	In Half Day	
Assumed annual electricity consumption, kWh	5,000.00	kWh
Assumed annual electricity generation from solar PV system, kWh	9,079	kWh
Expected solar PV self-consumption (PV Only)	0.00	kWh
Grid electricity independence / Self-sufficiency (PV Only)	0.00	%
D. Estimated PV self-consumption - with EESS		
Assumed usable capacity of electricity energy storage device, which is used for self-consumption, kWh	4.66	kWh
Expected solar PV self-consumption (with EESS)	3,836.84	kWh
Grid electricity independence / Self-sufficiency (with EESS)	77.0%	%
E. Additional benefits from PV and EESS		
EESS capacity not used for self-consumption	0.52	kWh
Total energy discharged per annum	3403.26	kWh
Additional self-consumption for EV, heat pumps, diverters (only when present)	0.00	kWh

Environmental Benefits

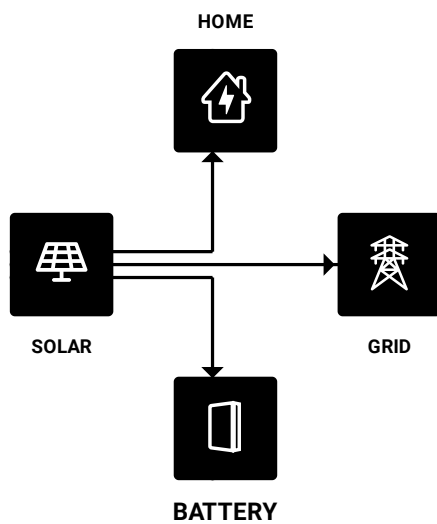
Solar has no emissions. It just silently generates pure, clean energy.



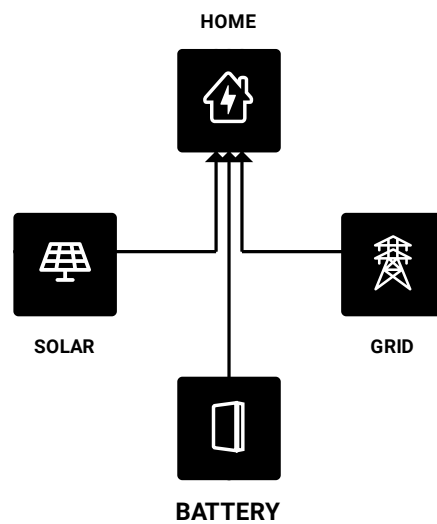
Each Year		Over System Lifetime		
182%	2 tons	69,053	444	49
Of CO ₂ , SO _x & NO _x	Avoided CO ₂ per year	Car km avoided	Trees planted	Long haul flights avoided

How your system works

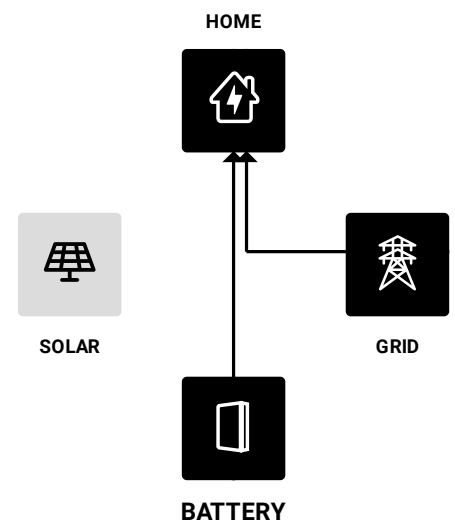
Generating Excess Solar



Partially Offset Usage

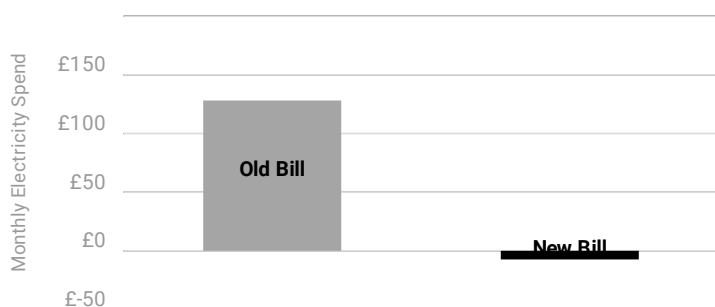


Night

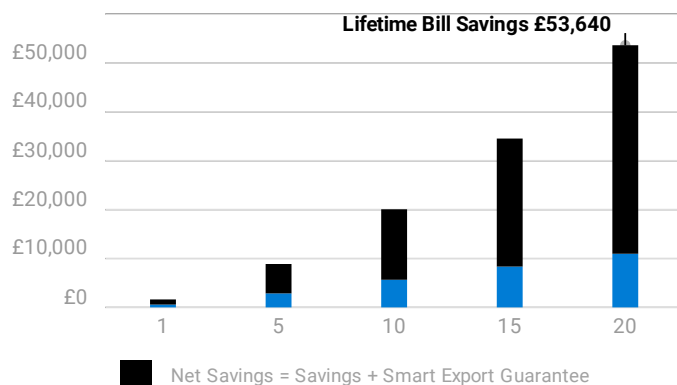


Electricity Bill Savings

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	312	499	223	28	3	151	68	83
Feb	440	488	195	141	14	146	48	98
Mar	736	484	136	381	40	147	8	139
Apr	957	412	66	603	66	127	-36	163
May	1,172	367	13	809	91	115	-72	187
Jun	1,209	349	0	853	98	110	-82	191
Jul	1,214	338	0	869	100	107	-84	191
Aug	1,066	331	7	736	83	105	-65	170
Sep	805	364	57	492	52	114	-24	138
Oct	568	406	113	267	26	126	17	109
Nov	342	463	192	64	6	140	56	84
Dec	259	499	246	0	0	150	77	74

Rate not specified specified, using Octopus Flux S Scotland - Jul 25 based on location.

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 5000 kWh per year, assuming Octopus Flux S Scotland - Jul 25 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 - Octopus Energy Octopus Flux S Scotland - Jul 25

Energy Charges

Peak Import

4pm-7pm Mon-Sun

£0.36 / kWh

Standard Import

5am-4pm & 7pm-2am Mon-Sun

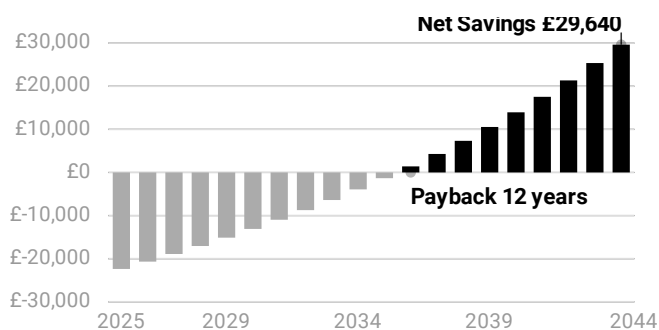
£0.26 / kWh

Flux Import <i>2am-5am Mon-Sun</i>	£0.15 / kWh
Smart Export Guarantee	
Peak Export <i>4pm-7pm Mon-Sun</i>	£0.27 / kWh
Standard Export <i>5am-4pm & 7pm-2am Mon-Sun</i>	£0.10 / kWh
Flux Export <i>2am-5am Mon-Sun</i>	£0.04 / kWh
Fixed Charges	
Standing Charge	£0.54 / day

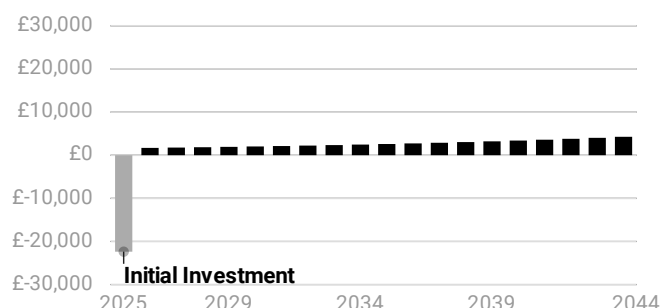
Net Financial Impact finance

$$\begin{array}{rclcl}
 £53,640 & - & £24,000 & = & £29,640 \\
 \text{Utility Bill Savings} & & \text{Net System Cost} & & \text{Estimated Net Savings}
 \end{array}$$

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: finance

22 x Aiko Energy 455 Watt Panels (AIKO-A455-MAH54Mb/2S) 1 x H1-5.0-E (Fox ESS) 1 x EP5 (Fox ESS) 1 x BRC Power Optimizer M500/14, 1 x S1000 [Power Optimizer], 1 x ZAPPI-2H22TB-G	
Total System Price	£24,000.00 Excluding £0.00 VAT
Purchase Price	£24,000.00 Including £0.00 VAT

Price excludes Retailer Smart Meter should you want us to install your Smart Meter it will be an additional cost.
 This proposal is valid until None.

Payment Milestones

Total	£24,000.00
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Quote Acceptance

I have read & accept the terms and conditions.

Signature

Name

Date

Should you require either this Contract or any other information we have supplied to you in large print, please contact us.

This Contract has been prepared to comply with all our obligations under the HIES Code of Practice and the Microgeneration Certification Scheme.

This contract details our obligations to you, and your obligations to us, if there is any point that we can clarify for you, please contact us.

1. The Quotation

The quotation we have given you is valid for 30 days from the date of issue. To confirm your order, you will need to sign both copies of this contract; you should keep one copy for your records and return the other copy to us at the address on the quotation. No contract will be in place until we confirm the order with you.

The quotation will document all goods and services we propose to supply, along with the total price for these goods and services including VAT.

We will provide you with a timetable for supplying the goods and carrying out the installation.

The quotation will include information as to the performance of the technology we have proposed to install. These performance estimates will be calculated according to the requirements of the appropriate MCS Standard.

We will discuss with you and provide you with information as to the location of key components. You will be given the opportunity to approve the site designs before work commences.

Where we are unable to supply the main energy generator that was specified in the quotation, we will inform you of this in writing and you will have the right to cancel this contract.

We will advise you on approvals and permissions that may be required for the work; however, it will be your responsibility to ensure that such approvals and permissions are in place.

If there are additional payments that you may have to make, such as planning costs or if you need to consult a Structural Engineer, we will offer assistance and advice, but you will be responsible for these costs.

If there is a particular service or item of equipment that would normally be considered as part of the installation and you have requested that this not be included, then we will have documented this on the quotation.

Please take time to acquaint yourself with this contract, if there is anything you do not understand, or if you require clarification on any point, please contact us.

2. Right to cancel

Your rights under this contract

The 'Cancellation Period' begins when the contract is agreed and will end 14 days from the day on which you acquire, or a third party other than the carrier and indicated by you acquires, physical possession of the last good.

You have the right to cancel this contract during the cancellation period without giving any reason.

To exercise the right to cancel, you must inform us of your decision to cancel this contract by a clear statement (e.g. a letter sent by post, fax or e-mail). You may use the Cancellation Form we have supplied but it is not obligatory.

To meet the cancellation deadline, it is sufficient for you to send your communication concerning your exercise of the right to cancel before the cancellation period has expired.

You may also cancel this contract if there is an unreasonable delay in the installation being carried out, if this has not been caused by you. You will also be entitled to a full refund if that delay has been caused by something outside of our direct control but not caused by you.

If you cancel this contract outside the cancellation period you may have to pay to us reasonable costs for any losses we may have incurred. We will attempt to keep these costs to a minimum. If you have paid us a deposit or any advance payments, we may retain all or part of these payments as a contribution.

You will be entitled to cancel this contract if there is a serious delay in our ability to carry out the agreed work that is outside of your control, but within our control, you will be entitled to a full refund.

If we are in serious breach of our obligations as detailed in this contract then you will be entitled to cancel this contract, request a repair or replacement or you may be entitled to request compensation.

You can only recourse to these actions if the goods or services are incorrectly described or not fit for purpose. You will not be entitled to seek these remedies if you have changed your mind about the goods and services agreed to.

3. Effects of cancellation

If you cancel this contract, we will reimburse to you all payments received, including the costs of delivery (except for the supplementary costs arising if you chose a type of delivery other than the least expensive type of standard delivery offered by us).

We may make a deduction from the reimbursement for loss in value of any goods supplied if the loss is a result of unnecessary handling by you.

We will make the reimbursement without undue delay, and not later than:

1. 14 days after the day we receive back from you any goods supplied, or
2. (if earlier) 14 days after the day you provide evidence that you have returned the goods, or
3. If there were no goods supplied, 14 days after the day on which we are informed about your decision to cancel this contract.

We will make the reimbursement using the same means of payment as you used for the initial transaction unless you have expressly agreed otherwise; in any event, you will not incur any fees as a result of the reimbursement.

We will collect the goods at our expense. You are only liable for any diminished value of the goods resulting from the handling other than what is necessary to establish the nature, characteristics, and functioning of the goods.

4. Work begun prior to the expiry of the cancellation period

If you have agreed in writing that installation work will commence before the cancellation period expires, and you subsequently cancel in accordance with your rights, you are advised that reasonable payment may be due for any work carried out. You must confirm in writing that work may commence before your cancellation period expires.

You will be entitled to cancel this contract if there is a serious delay in our ability to carry out the agreed work that is outside of your control but within our control. You will be entitled to a full refund.

If we are in serious breach of our obligations as detailed in this contract then you will be entitled to cancel this contract, request a repair or replacement or you may be entitled to request compensation.

You can only recourse to these actions if the goods or services are incorrectly described or not fit for purpose. You will not be entitled to seek these remedies if you have changed your mind about the goods and services agreed to outside of any required cancellation periods.

5. Related credit and other agreements –

If you decide to cancel your contract for our goods and services, then any credit agreement and any other ancillary contracts related to the main contract will be automatically canceled.

6. Our rights under this contract

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If, within fourteen days of us informing you in writing of a serious breach of your obligations to us you have failed to rectify this breach, we will have the right to cancel this contract.

Should we suffer any losses due to a breach of this contract then we will be entitled to reasonable compensation to cover these losses. We are required to attempt to keep all losses to a minimum.

7. Timetable for works

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We will have agreed with you on a timetable for carrying out the installation. By signing this contract, you are confirming that you agree with this timetable.

There can be occasions that this timetable may need to be varied, due to, for example, poor weather or unavailability of goods and services. We will inform you of any delay we become aware of at the earliest possible opportunity. We would then arrange a new mutually agreeable timetable.

In the case of severe delays to the delivery of goods then you may be offered different products of equivalent specification, value, and quality, so long as they are MCS certified. You can either accept that offer, wait for the products you ordered or choose to cancel the contract without penalty.

Should the delay be caused by us, or by our suppliers, and that delay could be considered as severe by a reasonable person, you would be entitled to cancel this contract without penalty to you.

Should the delay be caused by you, we will attempt to accommodate that delay without cost to you. However, if the delay incurs us in extra costs, for example, scaffolding, we will require that you cover these costs.

8. The Installation

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The installation will be carried out strictly in line with the MIS Standard relevant to the technology, and to any document referred to within that standard. In addition, we will ensure at all times that we meet all our obligations under the HIES Code of Practice.

The goods we supply will be of satisfactory quality and fit for the purpose. They will operate as we have described to you.

We will have insurance in place which will cover any loss or damage caused by us or our agents.

You will be required to supply us with normal services free of charge; this would include toilet, washing, water facilities, and electricity. You should also ensure we have safe and easy access to the installation area.

Any work to prepare for the installation, carried out by you or a third party that you employ should be carried out in line with the agreed

start date for the installation. If this work has not been completed and a consequent delay is caused you may be liable for any costs incurred by us for such a delay. The work will be carried out by personnel trained in each of the tasks they are assigned.

You will be given warranties for both the installation itself and for the installed goods. The terms of these warranties will be given to you in writing and we will explain them to you verbally.

Within seven days of the completion of the installation, we will hand over to you all documentation required as set out within the appropriate Microgeneration Installation Standard.

Waste will be removed not more than 7 days following completion of the installation.

9. Deposits, advance payments, and goods purchased with deposits and advance payments

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Any deposits and advance payments that you make to us can only be used to carry out work under this contract.

We are required under the HIES Code of Practice to protect any deposits and advance payments you make to us, up to 25% or to the value of £5000, whichever is the lowest amount, as well as the Workmanship Warranty, with an insurance policy. We will give to you the name and contact details of this insurance company with the quotation. To comply with this requirement all orders and contracts will be registered on the HIES Job Registration System within seven days of the order/contract being signed by the customer.

You will be entitled to claim on this policy should we fall into receivership, bankruptcy, or administration.

When we purchase goods for use under this contract the legal title to those goods or the proportion of which you have paid us for will pass to you. We will either deliver them to you or we will store them for you and mark them as your property. They will be kept separate from other goods. We will ensure that these goods are insured until they are delivered to you. You may make arrangements to inspect the goods or to remove them from our premises if you wish.

If we have requested a deposit, then this deposit will not exceed 25% of the total contract price set out in the quotation. Should you decide to cancel this contract within the cancellation period, then this deposit will be returned to you promptly. **[NOTE: HIES will not cover deposits or advance payments in excess of 25%]**

If we have requested advance payments in addition to a deposit, the total of all advance payments and deposits will not exceed 60% of the total contract price. We will not request advance payments to be made any more than 3 weeks from the agreed delivery or installation date.

If we have requested a deposit before a full technical assessment of your property has been made, and we are unable to proceed because of something discovered during that technical inspection, then any deposits or advance payments will be returned.

The quotation will set out in detail when invoices will be sent and the amounts due for each payment.

10. Goods belonging to us

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Any goods belonging to us that have been delivered to you should remain clearly identifiable as our property. Until the title to the goods is transferred to you the goods should be stored in such a way as they are protected from damage. They should be kept in their original packaging. Should you fear for the safety of the goods in any way, or you feel that the goods are causing any form of hazard you should contact us.

Where products and materials are delivered to, or stored at, the installation site you, the customer, shall not be liable for the inspection, storage, or handling of those goods. This does not preclude us asking you to check the goods received for any visible damage and to ensure they are correct.

Should you terminate the contract for any reason, then we will make arrangements with you to collect the goods. If this happens then we will reimburse you if any of your money was used to purchase a proportion of the goods. If you do not make adequate and reasonable arrangements with us to allow the goods to be collected, we retain the right to take legal proceedings to recover the goods or their value. The amount of any reimbursement may be reduced by any reasonable costs we may have incurred.

11. Changes to the planned work

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If you decide to make changes to any planned work after you have signed this contract you should contact us without delay. Wherever possible we will incorporate your changes and if we are not able to do so we will inform you as to why it is not possible for us to do so.

Where we are able to agree to your changes, we will require that you set out, in writing and within fourteen days, confirmation of your request.

You need to be aware that any changes to the original design may mean an adjustment to the cost of the installation. Any adjustment in the cost, either in addition or subtraction will be dealt with as a Variation of Contract and we will adjust the price by written agreement with you.

There can be occasions when we come across unexpected work. Should this arise, we will discuss this with you. If it is an area of work in which we are competent to operate, we will issue you with a quotation to complete that work. We will have documented on the quotation the normal rate for the work of our installers. If the work is outside our area of competence, we will assist you in finding a suitably qualified contractor to carry out the work. If this unexpected work causes a delay in the installation process, we may need to make reasonable charges for this delay.

12. Late payment

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You should make the payments agreed on the quotation as they become due. The final payment will be due upon completion of the installation. If you fail to make any agreed payment, we may cease work. If you fail to pay the amount specified in an invoice sent to you by the agreed due date, then we reserve the right to charge you interest until you pay the amount due. The interest rate we will charge will be 3% above the Bank of England base rate.

It is not permissible under this contract to withhold any more than a proportionate amount of the outstanding balance for any alleged defect. If you do withhold any amount after a payment has become due, you should give us notice of your intention before the final date on which payment is due. You should also, with that notice, state the reasons for withholding payment.

If we intend to cease work, we will give you notice of this in writing.

If you are in breach of this contract because you have not made a payment that was due to us and we have ceased work, you may have to compensate us for any additional costs we have incurred.

Depending on the circumstances, we may require that the goods be returned to us. If necessary, we will take legal proceedings to recover the goods or/and any outstanding amounts due to us.

13. Alternative Dispute Resolution (ADR)

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Note: The HIES ADR process only covers unresolved disputes arising from issues connected to the sale and installation of small-scale renewable technologies.

In the event of an unresolvable issue, we can refer our case to the nominated alternative dispute resolution provider through HIES, QA Scheme Support Services LTD, and the Dispute Resolution Ombudsman. HIES can be contacted at: Centurion House, Leyland Business Park, Centurion Way, Leyland, PR25 3GR, 0344 324 5242 or info@hiesscheme.org.uk.

The parties agree that, in the event of a dispute, we will exclusively attempt to resolve the dispute through using HIES's alternative dispute resolution services. If we are unable to resolve the dispute through mediation, the complaint can be referred by HIES to The Dispute Resolution Ombudsman, who is entirely independent of HIES.

This Contract is subject to the applicable laws of England, Wales, Scotland & Northern Ireland and subject to the agreement of the parties to attempt to resolve a dispute through alternative dispute resolution, the courts of England, Wales, Scotland & Northern Ireland shall have exclusive jurisdiction to hear any dispute arising from this Contract.

If any court, ombudsman or any other competent authority decides that any aspect of any term of this Contract is invalid or unenforceable, that aspect of that term shall be severed from the Contract and shall have no effect on the remainder of the Contract.

We recommend that you read the HIES Code of Practice, which is available at: <https://www.hiesscheme.org.uk/regulation/hies->

[scheme-rules-code-of-practice/](#)

14. **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 checks;
- c) Register your installation with any relevant bodies, including your deposit protection and insurance-backed guarantee and any competent person scheme;
- d) Address any concerns or complaints that you have about the Goods and Services, including liaison with HIES and QA Scheme Support Services Limited or The Dispute Resolution Ombudsman where the law requires us to share.

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.



This proposal has been prepared by ICS Renewables Ltd using tools from OpenSolar. Please visit www.opensolar.com/proposal-disclaimer for additional disclosures from OpenSolar.



DATASHEET

Single-Phase Hybrid/AC Inverter

HI-3.0-E / 3.7 / 4.6 / 5.0 / 6.0
ACI-3.0-E / 3.7 / 4.6 / 5.0 / 6.0

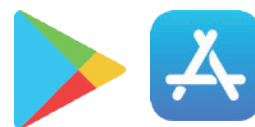


Fox ESS

HYBRID/AC INVERTER

Harness the power of the sun day and night with the ground-breaking range of Hybrid & AC inverters from Fox ESS.

Full of advanced features and compatible with our very own range of high-voltage batteries, the hybrid range from Fox ESS. It is a new class of Inverter.



Fox ESS storage solutions are available with advanced and intuitive app based remote control and monitoring functionality.



Easy Installation

Flexible configuration, plug and play set-up, built-in fuse protection.



High Voltage

Includes high-voltage batteries for maximum round-trip efficiency.



IP65 Rated

Engineered to last with maximum flexibility. Suitable for outdoor installation.



Remote Monitoring

Monitor your system remotely via smartphone app or web portal.



up to
6kW
charger
discharge

REFINED – POWERFUL – FLEXIBLE

BATTERY EXPANSION EASY UPGRADE



Expand your system easily by simply adding additional batteries. There are six battery size options, and Max. seven batteries can be installed in series, providing up to 33.24kWh of storage capacity.



For more about the Fox ESS range, visit:

WWW.FOX-ESS.COM



TECHNICAL SPECIFICATIONS

Model	H1-3.0-E AC1-3.0-E	H1-3.7-E AC1-3.7-E	H1-4.6-E AC1-4.6-E	H1-5.0-E AC1-5.0-E	H1-6.0-E AC1-6.0-E
INPUT PV (ONLY FOR HYBRID)					
Max. Input Power [W]	3900	4680	5980	6500	7800
Max. Input Voltage [V]			600		
Start-up Input Voltage [V]			75		
Rated Input Voltage [V]			360		
MPPT Operating Voltage Range [V]			80 ~ 550		
Max. Input Current [A]			13.5/13.5		
Max. Short-circuit Current [A]			15/15		
No. of Independent MPP Trackers	2	2	2	2	2
No. of Strings per MPP Tracker	1	1	1	1	1
BATTERY CONNECTION					
Battery Type			Lithium Battery (LFP)		
Battery Voltage [V]			85 ~ 450		
Max. Charge/Discharge Current [A]			40		
Communication Interface			CAN(Communicate With Inverter), RS485 (Upgrade BMS)		
AC INPUT AND OUTPUT (GRID)					
Max. AC Input Power [VA]	7000	7680	9600	10000	12000
Max. AC Input Current (per phase) [A]	31.8	34.9	43.6	45.5	54.5
Rated Output Power [W]	3000	3680	4600	5000	6000
Max. Output Apparent Power [VA]	3300	4048	5060	5500	6600
Rated Output Current (per phase) [A]	13.0	16.0	20.0	21.7	26.1
Max. Output Current [A]	14.3	17.6	22.0	23.9	28.7
Rated Grid Voltage [V]			220/230/240		
Rated Grid Frequency [Hz]			50/60		
Power Factor			1 (Adjustable from 0.8 leading to 0.8 lagging)		
THDi [%]			<3 @rated power		
EPS OUTPUT (WITH BATTERY)					
Max. Output Apparent Power [VA]	5000	5000	6000	6000	6000
Peak Output Apparent Power (60s) [VA]	6000	6000	7200	7200	7200
Max. Current (per phase) [A]	21.7	21.7	26.1	26.1	26.1
Rated Output Voltage [V]			220/230/240		
Rated Output Frequency [Hz]			50/60		
Power Factor			1 (Adjustable from 0.8 leading to 0.8 lagging)		
THDv (linear Load) [%]			<2 @rated power		
Switch time [ms]			<20		
EFFICIENCY					
Euro Efficiency [%]			97.00		
Max. Efficiency [%]			97.80		
Max. Battery Charge Efficiency (PV to BAT) (@full load) [%]			98.50		
Max. Battery Discharge Efficiency (BAT to AC) (@full load) [%]			97.00		
PROTECTION					
Insulation Monitoring			YES		
Residual Current Monitoring			YES		
DC Reverse Polarity Protection			YES		
Anti-islanding Protection			YES		
AC Short-circuit Protection			YES		
AC Overcurrent/Overvoltage Protection			YES		
DC Switch			YES		
SPD			DC: Type II, /AC: Type III		
GENERAL DATA					
Dimensions (WxHxD) [mm]			430*410*178		
Weight [kg]			23		
Installation			Wall-Mounted		
Topology			Transformerless		
Cooling Method			Natural		
Noise Emission [dB]			35		
Max. Operating Altitude [m]			2000		
Operating Temperature Range [°C]			-25 ~ 60		
Humidity (No Condensation) [%]			0 ~ 100		
Protection Degree			IP65		
Standby consumption[W]			<10		
Monitoring Module			WiFi, LAN, 4G, GPRS (Optional)		
Communication			2*RS485, DRM, Ripple Control, USB		
Display			LCD, App, Website		
STANDARD COMPLIANCE (MORE AVAILABLE UPON REQUEST)					
Safety			EN 62109-1, EN 62109-2		
EMC			EN 61000-6-2, EN 61000-6-3		
Grid Regulation			EN50549-1, C10 / 11, VDE-AR-N 4105, G98, G99, CEI 0-21, NRS 097-2-1, AS / NZS 4777.2		

* More technical characteristics are available on demand and customized.