Geo Green Power

10+ YEARS
ESTABLISHED IN 2010

- Solar PV specialists
- Heating engineering
- Battery storage systems
- EV Charging installations
- Insurance backed guarantees
- Quality products & workmanship
- Friendly, professional service

Trustpilot

MP Moran | Mr R. Scully

Solar PV Proposal

0800 988 3188 | info@geogreenpower.com | www.geogreenpower.com

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We plant a tree for every quote we produce!

Solar PV Proposal

Contents

Geo Green Power

Solar PV Quotation

Geo Green Power Ltd is pleased to submit this proposal for the supply and installation of a **19.25kW** solar PV system

Solar PV Installation – 19.25kWpk

System includes:-

- Supply and install 19.25kWpk, 47 x Canadian Solar 410W modules 25 YEAR WARRANTY
- Supply and install 1 x Solis 20kW inverter (Multi-MPPT, data-management system) 20 YEAR WARRANTY
- Van der Valk (flat roof system incl. ballast weight)
- Connect solar PV system to main electrical distribution unit
- Complete installation and commissioning of system

Contract terms:-

- Payment, contract and cancellation policies detailed in attached contract.
- Please sign and return enclosed Customer Order Form.
- This quotation is valid for 30 days.
- Electrical work other than that specified is not included in quotation.

Supply and install system £26,820.00 Excl. VAT @ 20%

Estimated output: 16,531 kWh of electricity per year
Estimated CO_2 savings: 5 tonnes per annum
Estimated Internal Rate of Return: 19.08% per annum (5 year payback)
Estimated total income and savings over 30 years: £229,277.00

ROI Spread Sheet

Assumptions	
System Capacity (kWpk)	19.25
Own Use Percentage	75%
Reference	£0.0000
Export Tariff	£0.1000
Own Use Tariff	£0.300
Electricity Inflation (%pa)	5.0%
RPI	3.5%
PV Degradation (%pa)	0.89%
kWh per year per kWpk	859
Cost per kWpk	£1,393
Maintenance Year	20
Maintenance Cost	£0
Battery Capacity (kWh)	0
Max Battery Power (kW)	0
Backup Gen Power (kW)	0
Deemed Export	FALSE
Existing Export pa (kWh)	0
Own Use Start Year	1

Year	Output kWh	Export Tariff	Import Own Use Tariff	25% Export Return	75% Own Use Bill Saving	Prev Export Own Use kWh	Prev Export Own Use £	Total Return
0								-£26,820
1	16,531	£0.100	£0.300	£413	£3,719	0	£0	**£4,133**
2	16,384	£0.104	£0.315	£424	£3,871	0	£0	**£4,295**
3	16,238	£0.107	£0.331	£435	£4,028	0	£0	**£4,463**
4	16,094	£0.111	£0.347	£446	£4,192	0	£0	**£4,638**
5	15,950	£0.115	£0.365	£458	£4,362	0	£0	**£4,820**
6	15,808	£0.119	£0.383	£469	£4,540	0	£0	**£5,009**
7	15,668	£0.123	£0.402	£481	£4,724	0	£0	**£5,206**
8	15,528	£0.127	£0.422	£494	£4,916	0	£0	**£5,410**
9	15,390	£0.132	£0.443	£507	£5,116	0	£0	**£5,623**
10	15,253	£0.136	£0.465	£520	£5,324	0	£0	**£5,844**
11	15,117	£0.141	£0.489	£533	£5,541	0	£0	**£6,074**
12	14,983	£0.146	£0.513	£547	£5,766	0	£0	**£6,313**
13	14,849	£0.151	£0.539	£561	£6,000	0	£0	**£6,561**
14	14,717	£0.156	£0.566	£575	£6,244	0	£0	**£6,820**
15	14,586	£0.162	£0.594	£590	£6,498	0	£0	**£7,088**
16	14,456	£0.168	£0.624	£605	£6,762	0	£0	**£7,368**
17	14,328	£0.173	£0.655	£621	£7,037	0	£0	**£7,658**
18	14,200	£0.179	£0.688	£637	£7,323	0	£0	**£7,960**
19	14,074	£0.186	£0.722	£654	£7,621	0	£0	**£8,274**
20	13,949	£0.192	£0.758	£670	£7,931	0	£0	**£8,601**
21	13,824	£0.199	£0.796	£688	£8,253	0	£0	**£8,941**
22	13,701	£0.206	£0.836	£705	£8,589	0	£0	**£9,294**
23	13,579	£0.213	£0.878	£724	£8,938	0	£0	**£9,661**
24	13,459	£0.221	£0.921	£742	£9,301	0	£0	**£10,043**
25	13,339	£0.228	£0.968	£761	£9,679	0	£0	**£10,441**
26	13,220	£0.236	£1.016	£781	£10,073	0	£0	**£10,854**
27	13,102	£0.245	£1.067	£801	£10,482	0	£0	**£11,284**
28	12,986	£0.253	£1.120	£822	£10,908	0	£0	**£11,730**
29	12,870	£0.262	£1.176	£843	£11,352	0	£0	**£12,195**
30	12,756	£0.271	£1.235	£865	£11,813	0	£0	**£12,678**
Totals:	**436,941**			**£18,374**	**£210,904**	**0**	**£0**	**£229,277**
								19.08%

This estimate is based on various assumptions and pay back figures cannot be guaranteed.

Geo Green Power

Customer Order Form

Contact Name	Mr R. Scully
Address	MP Moran, 300-306 West Green Road, London, N15 3QR
Project Ref	GGP-SCU-3QR
Date	08/09/2023
Site Address	As Above

Products and Services	
PV Panels	19.25kWpk, 47 x Canadian Solar 410W modules 25 YEAR WARRANTY
Inverter(s)	1 x Solis 20kW inverter (Multi-MPPT, data-management system) 20 YEAR WARRANTY
Mounting System	Van der Valk (flat roof system incl. ballast weight)
Electrical Installation (insurance backed through NICEIC)	Generation metering 6mm DC cabling incl. string controllers AC & DC isolation SWA AC cable supplies to isolator/switchgear (1 x 40amp supply required)
Applications & Surveys	Pre-installation site survey DNO G99 commissioning (connection fees may apply)
Scaffold & Access	Utilise developer scaffold/edge protection & access equipment
Miscellaneous	CAD drawings & layout plans Electrical schematics Solis web/app monitoring system (WIFI/GSM)

Cost (excl. VAT)	£26,820.00
VAT @ 20%	£5,364.00
Total	**£32,184.00**

Continued overleaf...

Customer Order Form

Payment 1: Deposit (Payable on order) 25%	£8,046.00
Payment 2: Balance of Products (Payable 7 days prior to installation) 35%	£11,264.40
Payment 3: Installation + Commissioning (Payable upon completion) 40%	£12,873.60

To proceed with this order please read the following instructions and then sign below and return to us.

Payments
Payments can be made by:
Cheque - payable to Geo Green Power Ltd
BACS - Account number - 20662568 Sort Code - 30-16-74

Cooling Off Period:
After signing this contract you have a fourteen day period during which you may cancel the contract without penalty. After this time, cancellation may incur a financial cost. Any cancellation charge will be determined on the basis of the actual costs incurred by Geo Green Power Ltd such as transport of products and erection of scaffolding. Cancellation must be made in writing to the above address.

Your Data:
Geo Green Power respect our customers' privacy, and will not pass your data on to third-party companies. By signing this contract, you agree to being contacted by Geo Green Power regarding both this purchase and any future marketing.
From time to time we would like to keep you informed (by mail and telephone) about the products, services, special offers and promotions of Geo Green Power Ltd and its associated companies and carefully selected third parties. By signing the Customer Order Form you are agreeing to this. If you would like to 'opt out' of these services, please contact info@geogreenpower.com or call 01509 880 199.

Customer Name (Print)	Customer Signature	Date

We plant a tree for every quote we produce!

treeapp

Power for a **Green** future

Geo Green **Power**

Established in 2010, we are one of the biggest and longest standing solar PV installers in the UK. We have an impressive client list which includes Mercedes-Benz, BMW, Ford, Panasonic, Kingspan, JCB, Smeg, National Trust and Nottinghamshire County Council.

We're built on a single core value: To employ people who provide the best customer experience possible. We work alongside customers to create the most cost-effective and efficient renewable solutions for their energy needs.

System Performance

Predicted System Performance

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.

However, it is possible to estimate the performance of a solar PV system and the UK Microgeneration Scheme requires all certified companies to also provide an assessment of system performance using a standardized approach based on the Government's Standard Assessment Procedure (SAP).

The performance of the solar array is calculated by multiplying the size of the array (kWp) by the shading factor (SF) and a site correction factor (kk).

kW = kWp x SF x KK

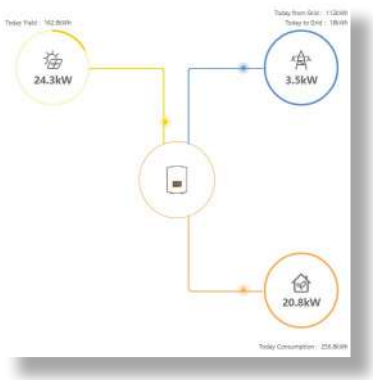
Estimated System Performance Using SAP	16,531kWh p.a.

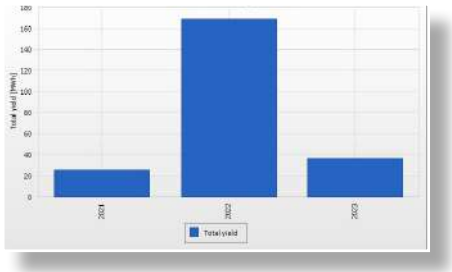
The shade assessment has been undertaken using the standard MCS procedure. It is estimated that this method will yield results within 10% of the actual annual energy yield for most systems.

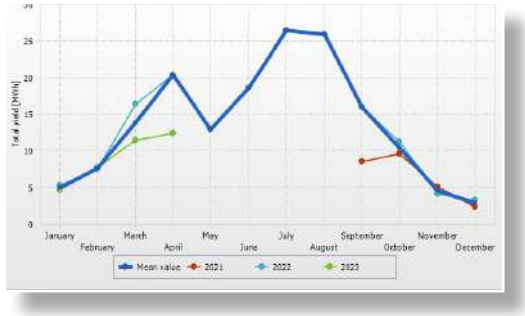
Green Power,
for your business

Your system design will be provided during the installation process.

Carbon Savings







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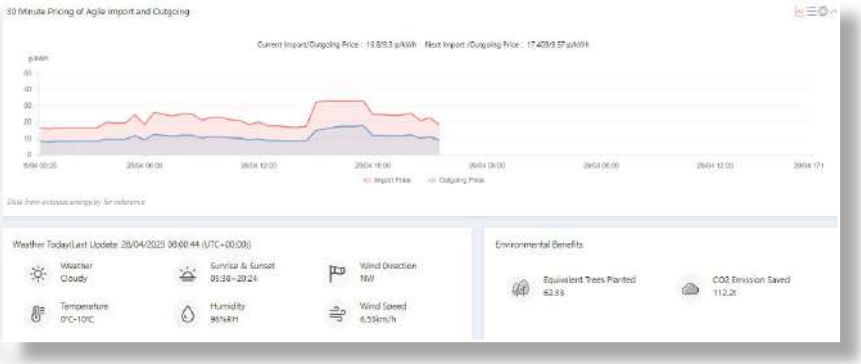
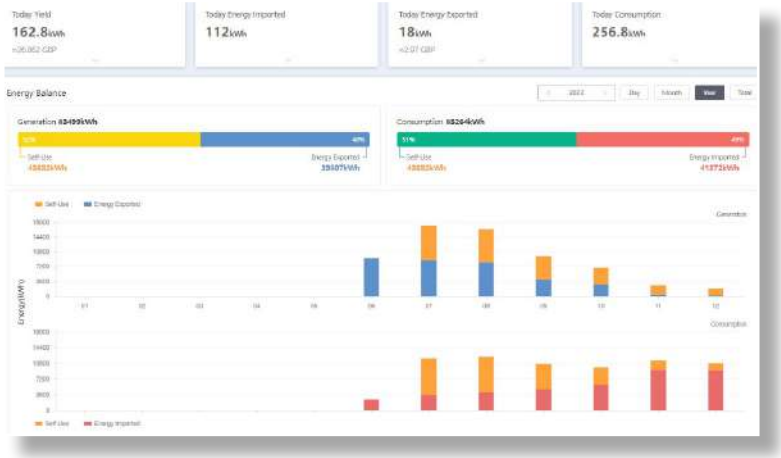




Solar PV systems are incredibly reliable and require minimal maintenance.

Included in your installation you have access to an online monitoring system which provides real time data, metrics and reports, giving you full access and control of your system.

Although solar is reliable we would still recommend an **annual system health check,** to ensure your system is generating efficiently and effectively.

Speak to your surveyor today, if you would like to discuss this further.

Testimonials

Would you like to be another one of our happy customers?

"Helpful, professional and always willing to answer any question regardless of whether it was relatively trivial or required more research.

"The team made the process of installing solar panels seamless."

Smeg UK

"Geo Green Power supplied exactly what they sold to me. Very professional outfit. I'm a very satisfied customer. Well done."

Hayloft Plants

"Professional outfit who couldn't do enough for us as a client. Look forward to working with them again."

Inchcape UK

"They have done a great job for us and the system they installed is still working faultlessly after several years. All the people we have met from Geo Green Power were very nice, helpful and competent. Highly recommended."

University of Nottingham

Trustpilot

Geo Green Power

BMW Inchcape Norwich is delighted with their solar PV system, part of their ambitious sustainable plans

We're delighted to partner with Inchcape, one of the UK's leading franchised retailer groups, installing solar PV systems across their network of car showrooms and supporting their ambitious objective to reduce their CO_2 emissions by 46% worldwide by 2030.

After an initial contract for three sites, we signed a deal to complete a further 30 installations. Inchcape BMW in Norwich was one of the first installations that we completed, a busy BMW and Mini car dealership selling new and used cars as well as offering servicing.

Mark Ames, Head of Business; is thrilled with the solar PV installation, and very impressed with the professionalism of the Geo Green Power team. He said: "The installation process was absolutely spot on – from start to finish. Before the install a representative came over to our site and talked me through the process explaining all of the timescales in terms of when the install would take place and how long the team would be on site... from start to finish – it went very smoothly and there was no impact to us whatsoever."

The installation took two weeks to complete and consisted of 526 panels, four inverters and all the associated cabling and mounting. The system will generate around 180,000kWh of electricity and save over 60 tonnes of CO_2 every year.

David Tyler, Director of Estates and Facilities: "Following the tender process we were delighted to award our initial contract to Geo Green Power for our trial sites. The process was incredibly smooth from start to finish and our first sites are now enjoying free, green electricity, protecting them against the huge increase in electricity costs that we are seeing. The obvious next step was to crack on and get the same solution installed at more sites."

Size of installation	Yearly Output	Annual CO_2 Savings
200kW	179,800kWh	62.93 tonnes

Case Studies

Geo Green Power Deliver on ENERGUS's Green Energy Plans

Geo Green Power has enabled ENERGUS, a unique conference and training venue in West Cumbria and part of the NDA (Nuclear Decommissioning Authority) estate, to meet its BEACON project targets and reduce CO_2 emissions by 88 tonnes a year.

The NDA estate is committed to measuring and reducing its carbon footprint, and as such identified an opportunity for ENERGUS to install solar PV on its premises in the Lake District. It was then down to ENERGUS's General Manager, Shaun Stanger, to find a renewable energy partner to successfully deliver their element of the carbon management plan.

After a robust tendering process, Geo Green Power was selected to deliver the 250kW scheme and start ENERGUS on its sustainable journey.

Now complete and generating, Shaun is thrilled with the results and said: "The new installation is working well. I've been given access to an online portal where I can track generation and we're seeing great benefits from the system already; particularly a reduction in our carbon footprint which was the main reason behind the project."

Installed in Autumn 2022, Shaun is yet to see the system at full generation during the summer months, and is currently waiting to renegotiate his energy tariffs. The system will generate over 205,000kWh a year and is currently performing as predicted.

James Cunningham, Managing Director at Geo Green Power said: "It was an absolute pleasure working with ENERGUS. The scheme is set to save around £4m over the next 30 years, but it's always more rewarding to work with businesses who are as focused on the environmental benefits as they are on the energy cost savings and that was certainly the case here with Shaun and the team."

Size of installation	Yearly Output	Annual CO_2 Savings
250kW	205,500kWh	88 tonnes

Geo Green Power

Video Case Studies

BMW Inchcape Norwich - 200kW Solar PV

West Coast Corrugated - 350kW Solar PV

Panasonic - 30kW Solar PV

Energus - 200kW Solar PV

Surge Protection Device (SPD)

An SPD can be included within your solar PV installation at an additional cost. You may wish to decline the installation of an SPD, or you may already have one installed that will cover the solar PV equipment.

Please read the following carefully.

If we GGP (Geo Green Power) were to install an SPD, it would only protect the solar PV installation.

The PV installation does not fall within points i, ii and iii below.

BS 7671:2018 +A2:2022 (Electrical Installation Regulations) requires that protection against transient overvoltages shall be provided where the consequence caused by overvoltage could:

(i) Result in serious injury to, or loss of, human life

(ii) Result in failure of a safety service

(iii) Result in significant financial loss or data loss

For all other cases, SPDs shall be fitted to protect against transient overvoltages, unless the installation owner declines such protection and wishes to accept the risk of damage to both wiring and equipment as being tolerable.

If you would like a quotation for the supply and installation of an SPD, please speak with your surveyor or contact us on: 01509 880 199

To continue without an SPD, please confirm that you are happy to proceed without the installation by signing below.

Customer Signature	**Date**

Research and Development

At Geo Green Power we feel it's important to drive this industry forward. In fact, our company was originally established to enable investment into renewable energy research and development. Although the business has grown commercially, we still maintain these beliefs today.

At any one time we are carrying out multiple research projects with the aim of improving the renewable energy systems currently available and developing new techniques and processes for the future. Many of these projects are funded by us, often in collaboration with other organisations including major universities and the UK government.

All our profits and available assets are currently reinvested into Research and Development.

Our research projects attract a lot of interest and have received national awards. If you have a research project that you'd like to discuss with us, please feel free to contact us. We'd be delighted to speak with you.


Take control of your
energy today!

1. ACCEPTANCE OF PROPOSAL

1.1. The Quotation is valid for a period of 30 days from the date of posting. If you wish to proceed then you must sign a copy of the Customer Order Form and return to us. The Quotation is provided on the basis that no Contract is in place until we send an acknowledgement of the order to you.

1.2. We will rely upon the written terms set out here in the Contract. Please read them carefully before signing this. If you need any explanations about these terms please email, write or telephone us at the address and telephone number provided. If any amendments to this Contract are required, you must confirm these in writing, and they must be agreed by an authorised representative of this Company.

The "Cooling Off Period"

1.3. You can cancel this Contract by sending us written notice using the address provided. You must send that written notice no later than 14 working days after the date on which this Contract was signed; this right is known as the "Cooling Off Period." If you cancel after that period then, unless we are in breach of this Contract, the conditions set out in section 9.1.1 of this Contract will continue to apply.

2. Our MAIN OBLIGATION to you is to carry out the work with all reasonable skill and care according to the timetable set out in the Quote and agreed in the Contract.

2.1. We agree to carry out the work with all reasonable skill and care in the planning, installation and commissioning of the system described in the Quotation. The goods we supply must:

- Be of satisfactory quality;
- Be fit for purpose; and,
- Operate as we described to you.

Occasionally, Geo Green Power may be forced to change the proposed products. In this case, the above applies.

2.2. We will carry out the work and all communication with you according to REAL Assurance Scheme Consumer Code. As a member of this Scheme our obligations include (but are not limited to) giving you a detailed Quotation that includes:

- An itemised list of the goods to be supplied.
- An itemised list of all survey, design, installation, and other services to be provided.
- Any relevant taxes such as VAT.
- A right to cancel this Contract by sending written notice to us using the cancellation form and address provided by us (see section 1.3 of this Contract)
- Accurate information about approvals and permissions needed for the proposed system and any grants or other financial incentives available for that work.
- The chance to approve site designs before the work starts.
- A written estimate of how the system will perform, calculated according to the relevant MCS installer standard.
- Detailed information about any work you need to do before the installation can begin.
- Accurate and truthful information, both in our verbal communication with you and our marketing literature and advertising.

As members of the REAL Assurance Scheme we must have appropriate insurance to cover possible third-party damage, which may be caused by any of our activities in supplying an energy generator to you.

2.4. The installation will comply with the relevant MCS installer standard

2.5. At the end of the contract we will give you any guarantees, test certificates and other relevant paperwork related to your goods and installation. We should give you this within seven days of the installation being completed.

2.6. We will provide you with guarantees that cover the goods and installation. This complies with the REAL Assurance Scheme Consumer Code.

2.6.1. We will explain to you the terms of the guarantees both in writing and verbally.

3. Your MAIN OBLIGATION(S) to us is to make the payments due to us.

The Deposit

3.1. You will pay us the deposit specified in the Quotation when you sign this agreement. The deposit shall not amount to more than 25% of the total contract price set out in the Quotation. Should you decide to cancel the contract within the "Cooling Off Period" (see section 1.3 of this Contract) we will return that deposit to you in full.

3.1.1. If you pay the deposit before we have inspected your building, and if we find during that inspection that the installation cannot proceed, then we will promptly refund that deposit to you in full.

Advance Payments

3.2. We will require you to pay a further advance payment no more than three weeks before the agreed delivery or installation date. Such a further advance payment, taken together with the deposit, will be for an additional 35% of the total price in the Quotation and will only be used to carry out this installation, for example to purchase goods. We explain in detail in the Quotation when invoices will be sent and the amount due for each payment.

3.3. We will not ask you to pay in advance more than 60% of the total contract price set out in the Quotation.

3.4. If we fall into receivership, administration or bankruptcy your deposit and advance payment, if any, could be protected as detailed in section 5 of this Contract.

Final Payment

3.5. The balance outstanding on the contract price is due on completion and commissioning of the installation. We will issue you with an invoice when the work is complete and has been commissioned.

3.5.1. Export contract negotiations are not considered part of the completion and commissioning of the installation as timescales and outcomes are outside of our control. The outstanding balance is due even if negotiations are ongoing.

3.5.2. If final commissioning cannot be completed due to the lack of a data connection, power supply, water supply or any other service that is your responsibility to provide; we will complete all other works in accordance with the contract and final payment will be due

3.5.3 You will not be entitled due to any alleged minor defect to withhold more than a proportionate amount of the outstanding balance. If you do withhold any amount after the due date because of any alleged minor defect you must give us notice before the final date on which payment is due. In that notice you must also state the reasons you are withholding the payment.
Consequences of Late Payment

3.6. If you fail to pay the amount specified in an invoice by the due date then we may charge interest until the full amount is paid. The interest rate we charge will be 8% above the base rate set by the Bank of England.

3.6.1. If we do not receive payment by the seventh day after payment is due, then we may give you written notice that we intend to stop work on the installation. Once we have sent you this written notice, we may suspend all work until payment is made.

3.6.2. If you are in breach of this Contract because you have failed to make an agreed payment, and we have suspended work on the installation, as detailed in section 3.6.1 of this Contract, then we may be entitled to recover any additional costs we incur. We will provide you with written notice containing full particulars of any claim for compensation within 21 days of any suspension of work.

3.7. We may require you to return and deliver up the goods to us. Failing this we will take legal proceedings to recover the goods or their outstanding value.

Terms & Conditions

4. Your other obligations to us

4.1. If advised by Geo Green Power, you must obtain all relevant permissions (such as planning and building consents) that are necessary before we start work on the installation. If we ask to see those permissions (and related drawings and/or specifications) you must make those available.

Supply of Services

4.2. Please provide the following for our use free of any charge:
- Water, washing facilities and toilets.
- Electricity supply.
- Adequate storage.
- Safe and easy access to your property from the public highway.
- Easy access to the location within the property where the installation is to take place by removing all belongings.

4.3. You, or a contractor you employ, may need to carry out preparatory work before the installation described in the Quotation can start. If so, we will describe this to you in writing. This work must be finished before the agreed date on which installation work is due to start. This work must be undertaken by competent persons and must be of the necessary quality for the installation. If this preparatory work is not finished before the agreed date on which the installation is due to start, then the conditions described in section 8.3 of this Contract will apply.

Additional Charges

4.4. Should you be in breach of conditions set out in 4.1, 4.2 and 4.3 of this Contract you may incur additional costs due to delay and/or provision of additional services. You may be required to pay reasonable compensation to cover those extra costs. If this happens then section 7 of this Contract will apply.

5. Delivery, Title and Risk

5.1. We will deliver the goods to the location detailed in the Quotation.

5.2. If agreed, in order to protect your deposit and advance payment then we must:
- Ensure that you are covered by the Deposit and Advance Payment Insurance Scheme provide an insurance backed guarantee (as described below), and;
- Place your deposit and any further advance payment made in a third party account (as described in section 5.4 below). *Please note: not all deposit payments are eligible for protection.*

5.3. Your deposit and advance payment, if agreed, will be insured through an insurance scheme. We will provide you with details of the scheme, and you will receive a policy directly from the provider once you have signed the Contract. In this way, your money will be protected should we fall into receivership, administration or bankruptcy before the goods have been delivered.

Purchased Goods

5.4. Where your money has been used to make specific purchases on your behalf, then legal title to those goods, or the proportion of them you have paid for, will pass to you. We must either deliver them to you or label them as belonging to you. Where the goods are stored by us then we must keep those goods separate from our own goods and those of third parties. We must also keep the goods stored, protected, insured and identified as your property until they are delivered to you. You must be able to inspect the goods and/or repossess them.

5.5. Goods belonging to us may be delivered to the site. If the contract is terminated early for reasons detailed in section 9.3 of this Contract then, with reasonable notice, you must return and deliver the goods to us. 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 return the goods to us, we retain the right to take legal proceedings to recover the goods or their value.

5.5.1. If the Contract is terminated early for reasons detailed under section 9.4 of this Contract then, with reasonable notice, you must return and deliver the goods to us. If this happens you may have to pay compensation for reasonable costs or losses reasonably incurred. This may be deducted from any deposit or further advance payment you have already made.

5.6. Until ownership of the goods passes to you, you must:
- Store the goods separately in such a way that they remain readily identifiable as our property;
- Not destroy, deface or obscure any identifying mark or packaging on or relating to the goods;
- Maintain the goods in a satisfactory condition.

6. Change of Work

6.1. If, after signing the contract, you want to change the work, you must consult with us first. We may be able to incorporate your changes into the installation provided that:
- It is technically possible;
- We have the necessary resources;
- The necessary permissions are in place.

6.2. If we agree to this change of work you must confirm this in writing.
6.3. We will then adjust the price:
- By written agreement beforehand, if possible; or if not then,
- By later written agreement; or if not then,
- By referring to any priced documents, if this applies; or if not then,
- By a reasonable amount for the work done or goods supplied.

6.4. Every change that means extra or revised work (as opposed to changes that leave something out) may mean extra costs. We will try to keep those costs to a minimum.

7. Unexpected Work

7.1. The Quotation given to you must detail the hourly or daily costs that would result from any unexpected work due to site conditions or special circumstances beyond the control of the member. Hourly rate = £60 / hour per operative

7.2. Where unexpected work arises, we will tell you and ask how you want us to proceed. If you want us to continue then section 6.3 of this Contract will apply.

8. Changes to Agreed Timetable

8.1. We will make every effort to complete the work by the time agreed with you. You must appreciate, however, that sometimes delays may occur for reasons beyond our control, especially when third parties are involved in installing other, related works. We cannot be held responsible for those delays. If such delays occur we will complete the work as soon as possible.

Consequence of delay caused by us

8.2. You may be entitled to compensation if we cause significant or unreasonable delay due to factors within our control.

8.2.1. In the case of major delays to the delivery of goods or installation then you may be offered different products of equivalent specification, value and quality, so long as they are MCS certified.

8.2.2. In the case of major delays to the delivery of goods then you will be entitled to cancel the contract as detailed in section 9.2 of this Contract.

Consequences of delay caused by you

8.3. We will seek to accommodate small delays without recourse to compensation. However, significant delays, at short notice, will be classed as an unexpected cost for us and will be charged based on our unexpected works rate.

8.3.1. If the work is delayed or lasts longer than expected for any reason within your control, we will adjust the price accordingly, as shown in section 6.3 and subject to section 7 of this Contract.

9. Cancellation of Contract

Your Rights

9.1. As detailed above in section 1.3 of this Contract, you can cancel this contract by sending us written notice no later than 14 working days after the date on which this contract was signed.

9.1.1. If you cancel this Contract after the period referred to in sections 9.1 and 1.3 of this Contract then you may have to pay compensation for costs or losses reasonably incurred. We will try to keep those costs to a minimum. We have a right to retain all or part of your deposit and further advance payment, if made, as a contribution.

9.2. If there is a serious delay to the delivery of goods for reasons that are outside your control, but within our control, then you will be entitled to cancel the contract and receive a full refund. This is in line with the REAL Assurance Scheme

Geo Green Power

Consumer Code and the [Supply of Goods and Services Act 1982].

9.3. Additionally, if we are in serious breach of our obligations as detailed in this Contract then you have a right to one of the following:

- Cancel the contract and receive an appropriate refund.
- Request a repair or a replacement.
- Ask for compensation.

You can seek those remedies if what we supply or install is faulty, incorrectly described or not fit for purpose. You cannot seek those remedies if you change your mind about the contract or you decide you no longer want some or all of the components.

Our Rights

9.4. If you are in serious breach of your obligations as set out in this Contract and you fail to remedy that breach within 14 days of receiving written notice from us about that breach, then we have a right to cancel the contract. We must give you reasonable opportunity to rectify the alleged breach.

9.5. If we suffer a loss as a result of your breach of contract, we must take reasonable steps to prevent the loss from getting worse. If your breach of contract leads to a cancellation then you may have to pay compensation for reasonable costs or losses reasonably incurred. These costs will be based on our 'unexpected works' costings, please refer to section 7.

10. Conciliation and Arbitration

10.1. If at any time a dispute arises between you and us which cannot be resolved amicably then both you and we can refer the matter to conciliation. We must agree to conciliation if that is your wish.

10.2. The conciliation service that will be used is that offered by the REAL Assurance Scheme and is described in the Consumer Code. It aims to reach a non-legal solution to the dispute in a reasonable timescale. The REAL Assurance Scheme will appoint a suitably qualified, independent expert (or experts) to consider the matter in the light of consumer protection legislation in force. After considering all the evidence, either in writing, or in a face-to-face mediation, the expert will make recommendations for resolving the issue. Neither party will be bound by these recommendations, though both are strongly encouraged to accept them in the interests of resolving the dispute speedily and effectively.

10.3. If the independent expert's recommendations are not acceptable for any reason, you can refer the matter to the independent arbitration service and we must agree to arbitration if that is your wish. If we would like to seek arbitration then we must seek your permission first. The procedure uses for independent arbitration is described in the REAL Assurance Scheme Consumer Code. You will have to pay a fee equivalent to the County Court small claims procedure fee. This fee will be refunded to you if the arbitrator finds in your favour.

10.4. The outcome of the arbitration process will be legally-binding and enforceable. An award made under the independent arbitration service will be final and binding on you and us. You and we may only challenge the award on certain limited grounds under the Arbitration Act 1996.

Customer Warranty for Installation Services

The Warranty sets out the terms upon which Geo Green Power Ltd offers warranty cover for the Products supplied to its Customers, and for the installation services provided by Geo Green Power Ltd installers. Terms defined in Geo Green Power Ltd's Terms and Conditions bear the same meaning when used in this warranty. Your attention is drawn to Geo Green Power Ltd's Terms and Conditions, which includes provisions relevant to the warranty set out below.

1. Installation services

1.1. Geo Green Power Ltd warrants to the customer that the Installation Services will be performed by the appropriately qualified and trained Geo Green Power Ltd registered Installers using reasonable care and skill, to such high standard of quality as it is reasonable for the Customer to expect.

1.2 The customer accepts that even though appropriately qualified and trained Geo Green Power Ltd registered Installers will be using reasonable care and skill, work on their roof may potentially cause some disturbance and depending on the nature, age and condition of the customer's roof may cause minor leaks and/or hairline cracks in roof sheets. Geo Green Power will endeavour to make good any such occurrence whilst on site, however if subsequent works are required Geo Green Power Ltd will submit quotes and facilitate any additional required works.

1.3. The warranty period for the Installation Services shall be two years from completion of the Installation Services.

2. Remedial Action

2.1. Where a valid claim in respect of the manner of performance of the services is notified to the us in accordance with Geo Green Power Ltd's Terms and Conditions, Geo Green Power Ltd may arrange for the relevant products to be reinstalled by any of Geo Green Power Ltd's registered or approved Installers or, at Geo Green Power Ltd's sole discretion, refund to the Customer the charge for the relevant part of the Installation Service (or a proportionate part of such charge), in which case Geo Green Power Ltd shall have no further liability to the customer.

3. Exceptions

3.1. This Warranty will not apply:

3.1.1. Unless the product has been installed by a Geo Green Power Ltd registered Installer and has been properly used and maintained throughout the Warranty Period.

3.1.2. Unless the customer has informed Geo Green Power Ltd of the alleged defect within the warranty period and within a reasonable period of discovery.

4. General Conditions

4.1. The customer agrees that he will promptly provide all information and support including access to site and services reasonably necessary to enable Geo Green Power Ltd to evaluate any alleged defect and to perform its obligations under this Warranty.

4.2. The Customer agrees that all premises, plant, power, fuel support services and other inputs that he is providing for the installation and use of the products are reasonable, are fit for purpose and will be properly used and provided.

5. Expertise

5.1. Any dispute as to whether a defect is covered by this warranty shall be immediately referred at the request of either party to an independent expert whose identity has been agreed by both parties or in default of agreement within 14 days of referral then who shall be appointed by the president for the time being of the trade association or professional association that most closely affects the Products.

6. Third Party Rights

6.1. The benefit of this warranty shall be exercisable by Geo Green Power Ltd's customer or, in cases when the property to which a system has been installed is sold within the Warranty Period, to the new legal owner of the property.

7. Law

7.1. This warranty shall be construed in accordance with English law and shall be subject to the exclusive jurisdiction of the English courts.

8. Manufacturer's Product Warranty

8.1. Most products supplied by Geo Green Power Ltd come with the benefit of a manufacturer's product guarantee. Where a claim in respect of any of the Products is notified to Geo Green Power Ltd by a customer in accordance with the Geo Green Power Ltd's Terms and Conditions, Geo Green Power Ltd will liaise with the manufacturer and use all reasonable endeavors to secure a replacement of the product or the part in question) or (at the manufacturer's discretion) a refund of the price of the product (or a proportionate part of the price), in which case Geo Green Power Ltd shall have no further liability to the Customer.

Cancellation Form

You have seven working days after you sign the contract during which you may cancel the contract without paying a penalty. This is known as the 'cooling off period'. If you would like to cancel the contract you should fill in this form and return it to Geo Green Power Ltd at the following address;

Green Barn
Costock Road
Wysall
Nottinghamshire
NG12 5QT

The laws that govern the length of the 'cooling off period' differ depending on how and where the agreement takes place. For example:

- Consumer Protection (Distance Selling) 2000 Regulations (as amended) and E-Commerce Regulations 2002: for goods purchased by telephone, mail order, fax, digital TV, the Internet, you have the unconditional right to cancel an order seven working days after you receive the goods.

- Consumer Credit Act 1974: if you enter into a credit agreement you have a right to a five day cooling off period from the date of the agreement regardless of whether the visit was pre-arranged.
  If you don't receive a copy of the 'executed agreement', the cooling off period extends to the end of the fourteenth day following the day you signed the agreement.

- Consumer Protection (Cancellation of Contracts Concluded Away From Business Premises) Regulations 1987: if you enter into a contract away from business premises you have a right to cancel the contract within seven days. In the case of doorstep selling, companies must give you written notice that you can cancel the contract. If they do not, they may be committing a criminal offence.

If the relevant law requires a longer cooling-off period, then this should take precedence over the requirements of the Code.

It is not advisable for Geo Green Power Ltd to start to install the system during the cooling-off period. If they do you should be aware that there may be some problems if you later decide to cancel the contract. For example, it is possible that you may incur some costs in making good the property.

Geo Green Power Ltd must set out clearly in the contract the conditions and costs that will apply should you want to cancel after the cooling off period. These must comply with the Unfair Terms in Consumer Contracts Regulations.

Geo Green **Power**

Cancellation Form

Complete, detach and return this form to your provider ONLY if you wish to cancel the contract you have signed within the 'cooling off period'.

To: .....

(At the time the contract is signed, Geo Green Power Ltd will insert the name and address of person to whom notice may be given in the event of a complaint being made.)

I/We (delete as appropriate) hereby give notice that I/we (delete as appropriate) wish to cancel my/our (delete as appropriate) contract no:

.....

(At the time the contract is signed, Geo Green Power Ltd will insert the reference number, code or other details to enable the contract or offer to be easily identified. They may also add your name and address.)

Signed: *.....

Date: .....

***PLEASE NOTE THAT YOU SHOULD NOT SIGN THIS FORM UNLESS YOU WISH TO CANCEL THE CONTRACT.**

MP Moran/ Mr R. Scully

Geo Green Power

Geo Green Power Ltd is a member of the Renewable Energy Assurance Limited (REAL) Assurance Scheme and this document is prepared in accordance with its Consumer Code.

Geo Green Power Limited,
Green Barn, Costock Road, Wysall, Nottinghamshire. NG12 5QT
+44(0)800 9883188
www.geogreenpower.com
Registered in England and Wales, No:7253661

evolve
ELECTRICAL CONTRACTORS LTD

HANDOVER PACK

HIES Consumer Code

APPROVED CODE TRADINGSTANDARDS.UK

MCS CERTIFIED

NAPIT

CUSTOMER INSTALLATION HANDOVER PACK

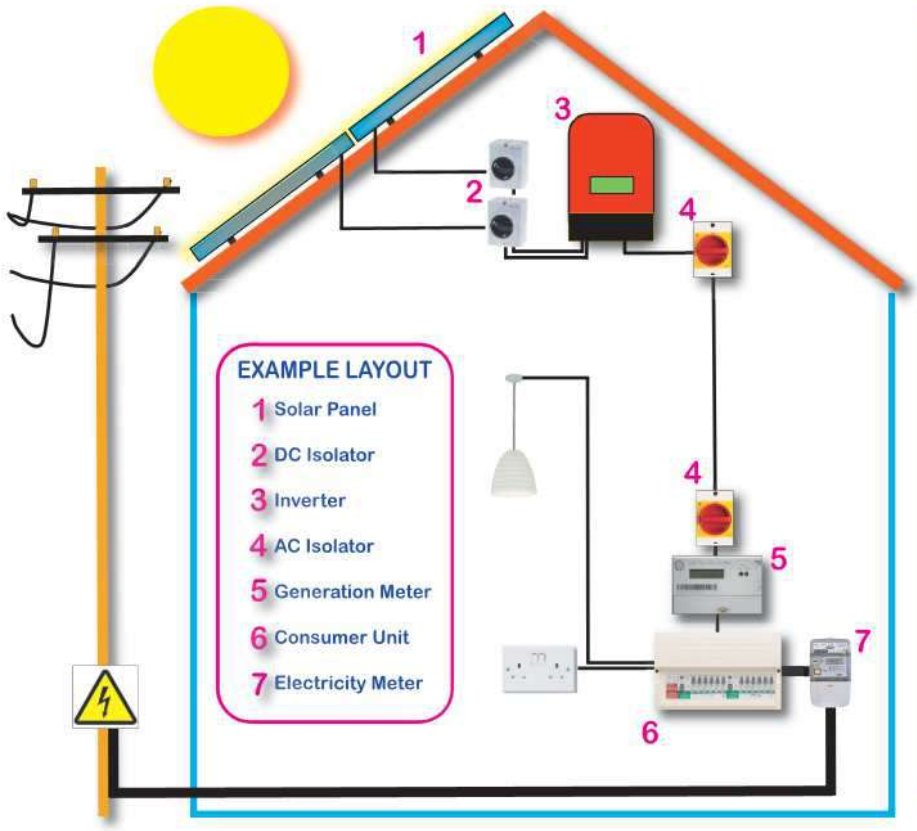
Mr David Bellis
302-306 West Green Road, London, England, N15 3QR

Commissioned on 05/01/2024

Evolve Electrical Contractors Ltd
Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG

You can find information on the following information within this pack

General characteristics of your solar installation



Solar panels are LIVE when they are exposed to sunlight, only a competent persons should perform any form of inspection or maintenance on the equipment

Start Up Sequence

1. Ensure that all isolators and the breaker switches relating to the PV system in the consumer unit are "ON".
2. Ensure that the DC isolators next to the inverter are set to "ON".
3. Turn the AC isolators to the "ON" position and wait 200 seconds.
4. The green power light or a positive message on the inverter will indicate the system is operating correctly.

Shutdown Procedure Sequence

1. Turn the AC switches to the "OFF" position.
2. Turn the DC switches to the "OFF" position.
3. DO NOT touch the equipment for at least 5 minutes ensuring that no lights or the panel is still operating.
4. If in any doubt, contact a competent solar electrician.

Operating Procedure Checks

1. In any instance you should consult the manufacturer's instructions if you feel that you have a fault with your inverter.
2. A yellow or flashing light signifies that a fault may have occurred and in some cases you may have a message on the inverter panel.
3. Sometimes faults can be cleared by following the shutdown procedure and restarting the system.
4. Always check the display on the generation meter to ensure that it is recording the power generated by the installation.
5. Regular readings can detect faults.

Cleaning of panels

1. Solar panels are made from self-cleaning glass. UV light breaks up any dirt on the surface and generally these do not require cleaning.
2. Only a competent person(s) should perform

Purpose

The purpose of this very brief survey is to help us better understand and improve our service and serving your needs more effectively in the future. By understanding where we are exceeding your expectations, or need to improve, we can allocate our resources to provide better products/services, knowledgeable staff, and executive management. Our goal is be proactive in monitoring your satisfaction, so please provide constructive feedback that we can incorporate this into our training and customer services.

Instructions

Please circle the response that best represents your view. Please circle N/A for any questions that you don't have enough experience to comment on. Following is an example of the scaling system.

EXCEEDS EXPECTATION UNACCEPTABLE

10 9 8 7 6 5 4 3 2 1 N/A

Once you have completed your survey, please return to the following address:

Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG

Buying Process

Sales staff professionalism:

10 9 8 7 6 5 4 3 2 1 N/A

Ability to understand your questions:

10 9 8 7 6 5 4 3 2 1 N/A

Expertise of sales staff:

10 9 8 7 6 5 4 3 2 1 N/A

Turnaround time for installation:

10 9 8 7 6 5 4 3 2 1 N/A

Quality & clearness of marketing materials provided:

10 9 8 7 6 5 4 3 2 1 N/A

Value Proposition

Value for money:

EXCEEDS EXPECTATION UNACCEPTABLE

10 9 8 7 6 5 4 3 2 1 N/A

Our value proposition is clearly communicated & understood:

10 9 8 7 6 5 4 3 2 1 N/A

Briefly describe why you chose to purchase from us and not our competitors?

Products/Services

How effectively does our product/service solve your problems?

10 9 8 7 6 5 4 3 2 1 N/A

How would you rate the overall quality of our product/service?

10 9 8 7 6 5 4 3 2 1 N/A

What features could we add or enhance to improve our product/service?

Recommendations

What recommendations could you make to help us serve you better?

Customer Service & Support

How effective are we at reacting and solving your issues?

EXCEEDS EXPECTATIONS UNACCEPTABLE

10 9 8 7 6 5 4 3 2 1 N/A

What level of courtesy do you receive from our Customer Service team?

10 9 8 7 6 5 4 3 2 1 N/A

Compared to other suppliers, how would you rank our ability to serve you?

10 9 8 7 6 5 4 3 2 1 N/A

Website

Did our website provide you with easy to use information?

10 9 8 7 6 5 4 3 2 1 N/A

What resources could we add to our website to help you?

About us

How likely are you to refer other people to our business?

VERY LIKELY WILL NEVER

10 9 8 7 6 5 4 3 2 1 N/A

If you have any further comments regarding any part of the service or products we have provided, we appreciate any comments good or bad.

Our Proposal

Proposal prepared for: Mr Bellis

Installation Address: 302-306 West Green Road, London, England, N15 3QR

Reduce your energy bills and do your bit for the planet……

Thank you Mr Bellis, for providing us with the opportunity to share our proposal for your clean energy requirements. In a world where fossil fuels are diminishing and energy costs are increasing, now is a great time to explore the benefits of Solar PV.

Solar Photovoltaic Systems (also referred to as Solar PV) are one of the most popular ways to save energy and money. We use the very best materials available and that's why our solar panels are MCS certified and backed up with the most robust guarantees in the industry.

The benefits of choosing Solar PV Systems…

The energy from the sun is entirely free and abundant in supply! Anyone using a Solar PV system can access this power source, and with today's advances in technology, this really makes it a sensible alternative to increasing energy bills.

Homes and businesses are saving money right now with this amazing, yet simple, technology. You can join thousands of people who are saving energy today. Rest assured that we will always offer the best advice, backed by our quality installation guarantee.

How Solar PV works…

PV systems use cells to convert sunlight into energy. The PV cell consists of one or two layers of a semi conducting material, usually silicon. When light shines directly on to the cells, it creates an electric field across the two layers and creates electricity to flow.

The greater the intensity of light, the greater the electricity that is generated. The solar panels gather the electricity and this is then converted to AC electricity via the inverter.

Once this has been converted, you are ready to use the electricity or export it back to the grid.

Below, we have detailed information you will need when considering the installation of your new Solar PV system. Please take the time to read our proposal, and should you have any further questions, please don't hesitate to ask, as we're only a phone call away.

Your details…

This proposal has been prepared for Mr Bellis, M P Moran & Sons Ltd. Having carefully reviewed the information you have kindly provided, we have determined that your property; (302-306 West Green Road, London, England, N15 3QR) is suitable for a 20.40 kWp photovoltaic system. This proposal is subject to a detailed site survey.

Who we are…

Evolve Electrical Contractors Ltd is a Limited Company and can be contacted by telephoning 01484246684 or by writing to Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG. Our VAT number is GB369992029 operating in England and Wales.

Peace of mind…

Evolve Electrical Contractors Ltd is a member of the Home Insulation & Energy Systems Scheme which is backed up by the Trading Standards Institute. Our registration number is EEC/A/0862. Further information can be found at www.hiesscheme.org.uk

As an approved accredited MCS installer, Evolve Electrical Contractors Ltd is audited annually by NAPIT who ensure that our procedures and installations are to the highest standard of the Microgeneration Certification Scheme. Our registration number is NAP60540. More information can be found at www.microgenerationcertification.org

Your reference for enquiries …

So that we are able to deal with any questions you may have quickly, please quote your unique reference number (1404L256). We have appointed Evolve Electrical Contractors Ltd to be your first point of contact and can be contacted on 01484246684. We strive to deliver maximum customer satisfaction if you feel this is not the case then you can complain using the contact details at the top of this page.

This proposal…

This proposal was prepared on 13/07/23 is valid for 7 days and will expire on 20/07/23.

Information provided to Evolve Electrical Contractors Ltd will be kept in accordance with the data protection legislation and will not be passed to any third party without your permission.

System performance …

Included in this proposal, we have attached the predicted system performance. You should note that this estimate is based upon the MCS procedural guidance and should not be considered a guarantee of the performance. The predicted system performance document tells you how we have calculated the figures and what our assumptions are based on.

When considering our proposal, you may wish to consider that the average use of electricity in a domestic house is 3300 kWh (Source: www.ofgem.org.uk) and this should be taken into consideration when evaluating your requirements.

Getting more information …

More information about renewable energy and its benefits can be found by visiting the Energy Saving Trust website: www.energysavingtrust.org.uk

This proposal is prepared in accordance with the HIES and more information can be located by visiting HIES website: www.hiesscheme.org.uk or by reading the enclosed leaflet.

Description of goods and services we will provide

Evolve Electrical Contractors Ltd recommends the following price proposal based on the information and suitability of your property.

Qty	Description	VAT	Unit Price(£)	Total (£)
1	SUPPLY OF PHOTOVOLTAIC SYSTEM (20.40 kWp)	20%	20,000.00	20,000.00
1	ELSTER THREE PHASE SMART METER *Defect:16 year(s)*	-	-	-
1	SOLAX X3 THREE PHASE TL20000 *Defect:10 year(s)*	-	-	-
1	VAN DER VALK VALK DOUBLE 2 PANEL GROUND MOUNT *Defect:15 year(s)*	-	-	-
48	TRINASOLAR 425W *Defect:15 year(s) Performance:25 year(s)*	-	-	-
			Sub Total:	20,000.00

Qty	Description of Services	VAT	Unit Price(£)	Total (£)
1	INSTALLATION OF PHOTOVOLTAIC SYSTEM		0.00	0.00
			Sub Total:	0.00

Sub Total (excluding VAT)	£20,000.00
VAT (20%)	£4,000.00
Total (including VAT)	£24,000.00

Summary of goods & works provided …

- ✓ Evolve Electrical Contractors Ltd will supply, design, and install your Solar PV system as described in our proposal. In addition, all systems will be installed and designed in accordance with the relevant small scale embedded energy (SSEG), engineering recommendation G98 or G99, and the Installation of Photovoltaic Systems, as published by the Microgeneration Certification Scheme (MCS).
- ✓ Unless we have otherwise indicated, our proposal includes provision of the following; Access equipment, installation of Solar PV mounting system, all electrical and cabling connections, installation of all required components to the manufacture specifications.
- ✓ We will liaise with your local District Network Operator, issue your MCS certificate of conformity, and notify your local building control office of conformity under Part P.
- ✓ We will use protective coverings whilst working within your property and remove all waste packaging at the end of the installation.

Deposits and advance payments…

- ✓ Evolve Electrical Contractors Ltd may require a deposit payment of no more than 25% of the contract price, including VAT, on confirmation of the order.
- ✓ We may require a further advance payment no more than 14 days prior to the installation, but this will never be more than 60% up-front, including the deposit. Information relating to payments can be found on the payment schedule enclosed in this proposal.
- ✓ If a deposit is required Evolve Electrical Contractors Ltd will insure this deposit with HIES intentions that you can get the job completed or your money back, if we cannot deliver your equipment because we have gone out of business. Any monies given up-front may be placed in a separate ring-fenced client account or payment protection scheme and will only be used to pay for goods and services associated with your contract.
- ✓ When you confirm the order and we receive your deposit, we will register your name and address and total value of the contract with the insurance scheme administrator. All policy information will be sent directly.
- ✓ If you do not consent to your details being registered, please contact us at 01484246684.

Some details you need to know …

- ✓ Whilst most Solar PV installations are allowed under the permitted development scheme, there are some exceptions to this where planning permission maybe required.
- ✓ We have issued our proposal on the assumption that all local planning regulations and permissions have been obtained and satisfied by you. We can advise you on this, however, our proposal does not include any provision for professional fees and/or services required to obtain such permissions, including local planning fees. You are reminded that Evolve Electrical Contractors Ltd cannot be held responsible for any installations carried out where planning permission was required, but not obtained, and we cannot offer refunds in such cases.
- ✓ Enclosed with this proposal is a diagram showing the location of the main components which we will install.
- ✓ Should unexpected works arise, we will liaise with you and determine an acceptable way forward. Our daily charge, additionally, to works described in your order, are £300.00 per person per day. Any agreement made will be confirmed in writing before commencement.

Timetable of works …

- ✓ We will agree with you on an acceptable installation date once your order has been confirmed, signed, and received by ourselves. Additionally, this will be subject to receiving your deposit (if we have asked you for one). It usually takes 3 to 10 days to install the PV system, which may include the erecting and removing of access equipment.
- ✓ Your installation will take place normally, after the cancellation period has passed, and is subject to work load and availability of materials.
- ✓ We do not normally start any work until the end of your 14 day cancellation period. If you want us to start work sooner for any reason, please be aware that you must ask for this in writing using the form enclosed below.

- ✓ For more information about your right to cancel the contract, see the *'Cancellation Period and your right to cancel'* attached at the end of this document.

Structural integrity & insurance …

- ✓ Unless otherwise stated, we believe that the structure is suitable for the installation of Solar PV. The responsibility to obtain an independent structural survey or opinion is David Bellis.
- ✓ We recommend that you inform your building insurers of the proposed installation of Solar PV. Your insurer may, in some instances, require an additional premium.
- ✓ Evolve Electrical Contractors Ltd has insurance to cover and mitigate any third party losses and/or damage which may be caused by any of our activities involving the supply and installation of your Solar PV system. A copy of our insurance certificate is available on request.

Workmanship warranties & guarantees …

- ✓ All goods supplied are guaranteed by their manufacturer. The warranty information for each item is detailed above.
- ✓ Any product damaged by Evolve Electrical Contractors Ltd during installation shall be replaced free of charge.
- ✓ We guarantee our workmanship for 2 years from the date of install.
- ✓ This workmanship warranty will be transferable to the new legal owner of the property if it is sold during the warranty period automatically. We recommend updating Evolve Electrical Contractors Ltd on 01484246684 with the new details of the system owner.
- ✓ All members of the Home Insulation & Energy Systems Scheme are required to have arrangements in place so that your workmanship warranty from us will still be honoured, if we should go out of business during this warranty period.
- ✓ Our workmanship warranty is insured under the HIES scheme. You will receive an individual policy document confirming the details of the workmanship warranty insurance.
- ✓ Where there is a need to claim on a manufacturer's warranty within the first 2 years we will make the claim from the manufacturer on your behalf and we will replace the faulty equipment free of charge under the manufacturers' standard terms and conditions.

System commissioning & handover …

- ✓ Evolve Electrical Contractors Ltd will test and commission your Solar PV system, which will be performed in line with the Microgeneration Certification Scheme standards, the manufacturers installation requirements, and ensure safe system operation.
- ✓ Following the testing and commissioning of the system, a detailed operating manual will be provided to you within 10 days.

Support and maintenance …

- ✓ Solar PV Systems have no moving parts so they require very little maintenance. However, they are not completely maintenance free and a yearly check of the system is recommended.
- ✓ Our maintenance contract is an optional extra service. Details of this can be requested separately and additional charges may be incurred.

Additional notes & unless otherwise stated …

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Predicted System Performance

The Assumptions we have made are based on...

Predicted System Output	Assumed Annual Inflation (RPI)	Assumed On-site Energy Consumption
18,849.60 kWh/annum	5%	0%
Our Proposal Installation Cost	**Assumed Energy Unit Cost**	**Assumed Annual Energy Inflation**
£24,000.00 Inc VAT	0.00 pence	6%

Environmental Impact...

CO^2 Savings
0.203 kg saved per PV kWh
CO^2 Savings Over 20 Years
87 tonnes

Address & Climate Data...

Project Reference	Post Code	Irradiance Zone	Roof Pitch
FSS254/1404 L256	N15 3QR	1	15^0
Address		**Irradiation Level**	**Degrees From South**
302-306 West Green Road, London, England, N15 3QR		924	0^0

Some things you need to know...

1. The predicted output assumes degradation at 0.5% loss per year from the collectors.
2. The predicted system performance calculation illustrated in this table is based upon the MCS standard using regional zone data as published on the MCS website, you can access this by visiting www.mcscertified.com
3. The calculation is given in the assumption that no further structural or shading changes are made before or after the time of installation, this could affect the system performance if this alters. You should be aware that overgrown trees, shrubs and hedges may also create shading at a later date.
4. We have illustrated at the end this document how we have made the calculations and how these are worked out.
5. Clarification of our assumptions can be requested by contacting us.

Your predicted system performance 20 year outlook

Year	Estimated Yearly Energy (kWh)	Predicted Unit Cost + Inflation	Predicted Annual Bills	Export @ 100% + RPI	Export Total	Estimated Generation	Collector Efficiency	Electricity Used on Site (kWh)	Saving from Energy Used	Yearly Total Inc. Savings	Accumulative Total
1	0.00	0.00p	£0.00	0.00p	£0.00	18,849.60 kWh	100%	0.00	£0	£0	£0
2	0.00	0.00p	£0.00	0.00p	£0.00	18,849.60 kWh	100%	0.00	£0	£0	£0
3	0.00	0.00p	£0.00	0.00p	£0.00	18,661.10 kWh	99%	0.00	£0	£0	£0
4	0.00	0.00p	£0.00	0.00p	£0.00	18,661.10 kWh	99%	0.00	£0	£0	£0
5	0.00	0.00p	£0.00	0.00p	£0.00	18,472.61 kWh	98%	0.00	£0	£0	£0
6	0.00	0.00p	£0.00	0.00p	£0.00	18,472.61 kWh	98%	0.00	£0	£0	£0
7	0.00	0.00p	£0.00	0.00p	£0.00	18,284.11 kWh	97%	0.00	£0	£0	£0
8	0.00	0.00p	£0.00	0.00p	£0.00	18,284.11 kWh	97%	0.00	£0	£0	£0
9	0.00	0.00p	£0.00	0.00p	£0.00	18,095.62 kWh	96%	0.00	£0	£0	£0
10	0.00	0.00p	£0.00	0.00p	£0.00	18,095.62 kWh	96%	0.00	£0	£0	£0
11	0.00	0.00p	£0.00	0.00p	£0.00	17,907.12 kWh	95%	0.00	£0	£0	£0
12	0.00	0.00p	£0.00	0.00p	£0.00	17,907.12 kWh	95%	0.00	£0	£0	£0
13	0.00	0.00p	£0.00	0.00p	£0.00	17,718.62 kWh	94%	0.00	£0	£0	£0
14	0.00	0.00p	£0.00	0.00p	£0.00	17,718.62 kWh	94%	0.00	£0	£0	£0

15	0.00	0.00p	£0.00	0.00p	£0.00	17,530.13 kWh	93%	0.00	£0	£0	£0
16	0.00	0.00p	£0.00	0.00p	£0.00	17,530.13 kWh	93%	0.00	£0	£0	£0
17	0.00	0.00p	£0.00	0.00p	£0.00	17,341.63 kWh	92%	0.00	£0	£0	£0
18	0.00	0.00p	£0.00	0.00p	£0.00	17,341.63 kWh	92%	0.00	£0	£0	£0
19	0.00	0.00p	£0.00	0.00p	£0.00	17,153.14 kWh	91%	0.00	£0	£0	£0
20	0.00	0.00p	£0.00	0.00p	£0.00	17,153.14 kWh	91%	0.00	£0	£0	£0
System Payback											
-	-	$PPREDICT.UNITCOST$p	£$PPREDICT.ANNENBILL$	-p	£-	- kWh	-%	-	£-	£-	£-

Calculations...

General Guidance

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 procedure as set out in the standards in the MCS New PV Guide v1 and is given as guidance only. It should not be considered as a guarantee of performance.

A further illustration of the reward calculation can be found at www.energysavingtrust.org.uk and the applied procedure under the MCS installer standards at www.mcscertified.com

Accuracy Guidance

The system performance calculation has been undertaken using the 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. This calculation is subject to a full site survey having been completed.

Shading Guidance

The shade assessment has been undertaken using the MCS Guide to the installation of Photovoltaic systems 2012 procedure and is estimated that this method will yield results with 10% of the annual energy yield for most systems. Attached to this document is the horizon sun path chart which is used in the calculation procedure. The sun path diagram has 84 blocks and each block has a calculation measurement value of 0.01. Obstacles blocking the view of solar PV system will be shaded on this chart and based upon the number of blocks shaded, this provides a correction factor that will better predict the direct sunlight path on you PV system. For an example calculation – 1 block is shaded so the calculation would be 1 x 0.01 = 1 (shading factor).

How We Work It Out

There are 3 different factors used to make up this calculation
kWp x Kk x SF

1. **kWp** is the total size of the solar array installed.
2. **Kk** this information is the irradiance (sunlight) in your postcode region.
3. **SF** you can see how this is calculated in shading guidance.

The calculation we used in this instance to give the assumed output is:

20.40 X 924 X 1.00
= 18,849.60 kWh per year

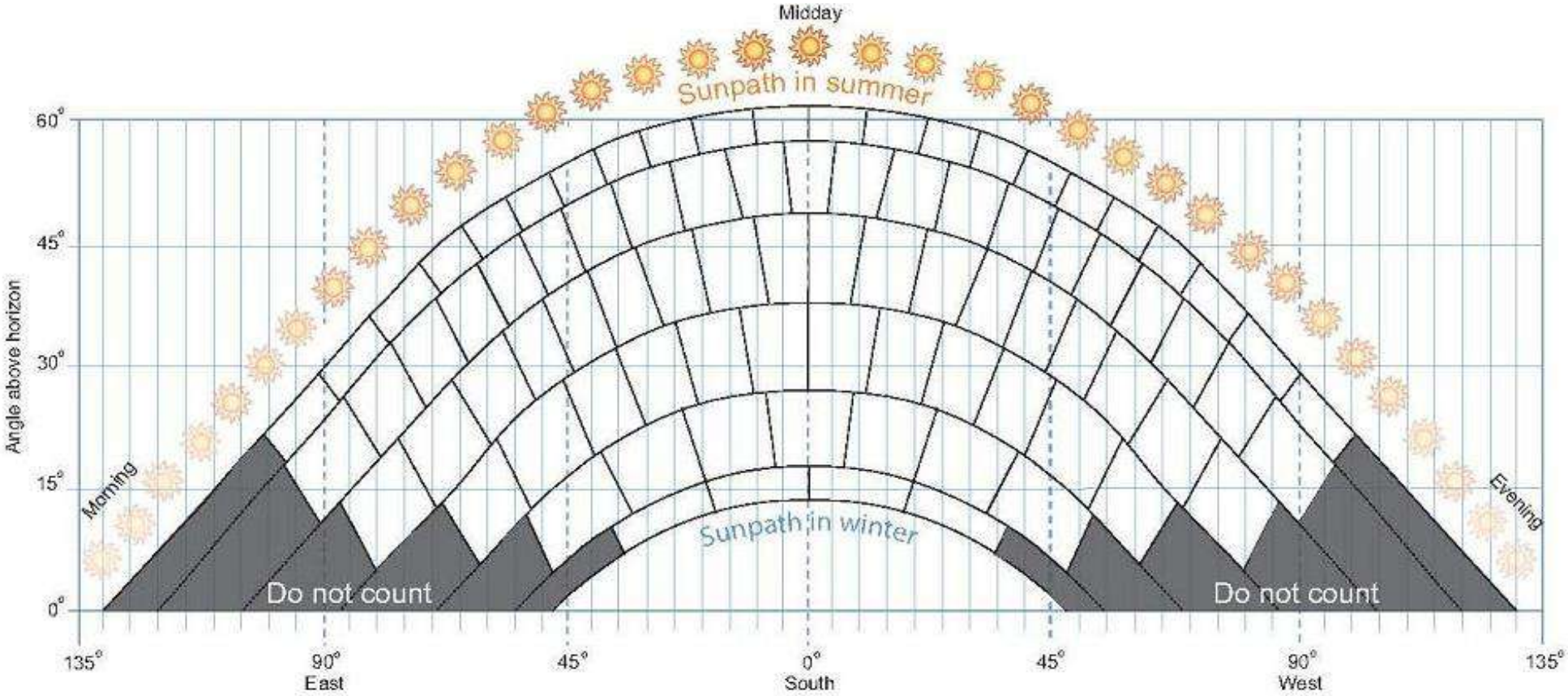
Calculation Information

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 standard MCS procedure and is given as guidance only for the first year of generation. It should not be considered as a guarantee of performance.

The solar PV self-consumption has been calculated in accordance with the most relevant methodology for your system. There are a number of external factors that can have 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.

Sun Path Shading Information

We have determined the shaded areas for your property are:



Your Order

Proposed Payment Schedule & Order Acceptance - 1404L256/01

Company Copy – To be returned to Evolve Electrical Contractors Ltd.

Payment stage 1 Deposit payable on your confirmation of order acceptance	**£6,000.00**
Payment stage 2 Payable 14 days prior to installation	**£8,400.00**
Payment stage 3 Payable on completion of installation and commissioning of the system	**£9,600.00**
Total Amount Payable (Including VAT)	**£24,000.00**

Payment can be made by Cheque, BACS

When paying by bank transfer please quote 1404L256 on your payment.

You can pay by bank transfer to the following bank account details:

Bank: TSB BANK PLC Cloth Hall St Huddersfield

Account Number: 00009355 Sort Code: 771101

Order Acceptance 1404L256/01

I/We sign to hereby confirm acceptance of this proposed order.

I/We sign to agree to the total cost and payment schedule as set out above.

I/We sign to agree to the order and confirm the products and installation service as described in proposal reference: 1404L256/01.

I/We sign to confirm I/We have read and agree to the Terms and Conditions as detailed in proposal reference: 1404L256/01.

Name: Please print	
Signature:	**Date:**

Your Order

Proposed Payment Schedule & Order Acceptance - 1404L256/01

Your Copy – To be retained by you.

Payment stage 1 Deposit payable on your confirmation of order acceptance	**£6,000.00**
Payment stage 2 Payable 14 days prior to installation	**£8,400.00**
Payment stage 3 Payable on completion of installation and commissioning of the system	**£9,600.00**
Total Amount Payable (Including VAT)	**£24,000.00**

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I/We sign to hereby confirm acceptance of this proposed order.

I/We sign to agree to the total cost and payment schedule as set out above.

I/We sign to agree to the order, and confirm the products and installation service as described in proposal reference: 1404L256/01.

I/We sign to confirm I/We have read and agree to the Terms and Conditions as detailed in proposal reference: 1404L256/01.

Name: Please print	
Signature:	**Date:**

Cancellation Period & Your Right to Cancel

You have the right to cancel this contract during the 'cancellation period' without giving any reason. The cancellation period is a period of 14 days provided to you under the Consumer Contracts (Information, Cancellation and Additional Charges) Regulations 2013 and E-Commerce Regulations 2002.

For this order proposal reference: 1404L256/01 **, the cancellation period** for this order, is within 14 days of the date on which the last item of the goods to be supplied is delivered to the installation address.

To exercise the right to cancel, you must inform us in writing at Evolve Electrical Contractors Ltd Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG or by email to YDT3937@paperless.energy of your decision to cancel this contract. A cancellation notice form is overleaf for your ease to cancel. Please use a proof of delivery for post, or receipt request if sent by e-mail.

If you cancel within the cancellation period, we will return any monies you may have paid, in full, within 14 days of being notified, by you, that you wish to cancel.

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.

If you cancel this contract, within the cancellation period, but after delivery of some or all the goods, then we will reimburse to you all payments for delivery charges, unless you specifically requested an enhanced delivery - costing more than our normal service delivery. In which case, we will only reimburse the price of our normal service delivery charges.

Please note, if you cancel this contract within the cancellation period, but after delivery of some or all the goods, we may withhold reimbursement of deposits or advance payments until we have received the goods back, or you have supplied evidence of having sent back the goods, whichever is earlier.

We may make a reasonable deduction from the reimbursement for loss in value of any goods supplied by Evolve Electrical Contractors Ltd, if the loss is the result of handling of the goods by you, or someone other than a representative of Evolve Electrical Contractors Ltd, acting on your behalf.

If you cancel after the cancellation period, we may have to charge you based on the actual costs we have incurred by the time you cancel excluding costs incurred before the contract and/or order acceptance was signed.

Cancellation Notice Form

To be returned to Evolve Electrical Contractors Ltd Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG or by email to YDT3937@paperless.energy

I/We sign to hereby **give notice that I / we wish to cancel the order 1404L256/01**

To: David Mooney Evolve Electrical Contractors Ltd Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG

Order reference: 1404L256/01

Name: Please print	
Signature:	**Date:**

Express Request for Work to Commence

To be returned to Evolve Electrical Contractors Ltd Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG or by email to YDT3937@paperless.energy

By signing and returning this document you are providing a written request for *Evolve Electrical Contractors Ltd* to commence work in relation to order reference: 1404L256/01 within the 14-day cancellation period.

The cancellation period is a period of 14 days provided to you under the Consumer Contracts (Information, Cancellation and Additional Charges) Regulations 2013.

For this order, Order reference: 1404L256/01 the cancellation period, is within 14 days of the date on which the last item of the goods to be supplied is delivered to the installation address.

Please note: If you consent for work to begin within the cancellation period, should you later decide to exercise your right to cancel the contract within the cancellation period, you will be liable for the cost of goods and services already supplied up to the point of cancellation, and of making good of the installation property.

If you chose to cancel the contract with the cancellation period, but after the installation is complete, the full contract price will be payable plus you will be responsible for the costs of making good the property.

I / we agree that Evolve Electrical Contractors Ltd may commence works on:
before my cancellation period has expired.

I/We understand that signing this document does not affect my/our right to cancel the contract in the cancellation period. For this order, the cancellation period is within 14 days of the date on which the last item of the goods to be supplied is delivered to the installation address.

Name: Please print	
Signature:	**Date:**

ACCEPTANCE OF ORDER TERMS & CONDITIONS

Contract for installation services between Evolve Electrical Contractors Ltd AND Mr David Bellis

Date: 13/07/23

This contract complies with our obligations as members of both the Home Insulation & Energy Systems Scheme (HIES) and the Microgeneration Certification Scheme (MCS).

1 ACCEPTANCE OF PROPOSAL

1.1 The Proposal is valid for a period of 7 days from the quote date indicated above. If you wish to proceed, you must sign the order acceptance form, then return one of these to our address and keep the other for your records. No contract is in place until we send an acknowledgement of the order to you.

1.2 Please read these terms carefully before signing them. If you need any explanations, of any part, please contact us in writing at YDT3937@paperless.energy or Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG or by telephone on 01484246684.

1.3 This agreement is governed by the law and the courts prevailing where your property is located.

1.4 You have the right to cancel this contract during the 'cancellation period' without giving any reason. **The cancellation period lasts 14 days. The cancellation period commences on the date of which the last item of goods to be supplied are delivered to the installation address.** You can also cancel the contract without penalty before any of the goods are delivered.

1.5 To cancel this contract you must inform us of your decision in writing, by letter sent by post, which requires a proof of delivery to Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG or email YDT3937@paperless.energy.

You can also use the attached cancellation form, but this is not obligatory.

Should you choose to cancel your order within the cancellation period, any advanced payments you have made will be returned to you.

If, for any reason, you wish to cancel this contract after the Cancellation Period, then you may be liable to pay costs and we may retain all or part of your deposit and further advanced payments, if made, as a contribution. See paragraph 9.1.1 for more on this.

2 OUR MAIN OBLIGATION TO YOU is to do the work with all reasonable skill and care according to the standards set by the Microgeneration Certification Scheme (MCS) and according to the timetable set out in the Proposal. Under the MCS scheme, only certified companies can enter into a contract with a customer for the sale and installation of a system.

Our MCS Certification number is NAP60540 and we are registered with NAPIT.

2.1 We agree to carry out the works with all reasonable skill and care in the planning, installation, and commissioning of the system described in the Proposal.

The goods we supply will:
Be of satisfactory quality; Be fit for purpose; and,
Operate as we describe to you.
2.1.1 We will inform you of the name of any contractor engaged by us to undertake the installation of your system, and we will take full responsibility for their work and their compliance with (HIES) Consumer Code.

The Timetable

2.2 We agree to supply the goods and carry out the installation work as specified in the timetable that we have agreed and is documented in the Proposal. Your acceptance of these terms indicates that you agree to proceed using that timetable.
2.2.1 We will make every effort to complete the work by the time agreed. You must appreciate, however, that sometimes delays may occur for reasons beyond our control. Such reasons include but are not limited to, severe weather conditions. We cannot be held responsible for those delays.
2.2.2 If such delays occur, we will communicate this with you as soon as possible and we will adjust the timetable by consensual agreement of both parties.

2.2.3 In the case of severe delays to the delivery of goods, 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 or wait for the products you ordered. Alternatively, you can choose to cancel the contract as detailed in section 9.2 and 9.3 below.
This is in line with the Consumer Code and the Supply of Goods and Services Act 1982.
2.2.3.1 we will not be liable for the consequences of any events that are outside of Our reasonable control and which includes, but is not limited to:
- Civil commotion, civil war, riot, invasion, armed conflict, terrorist attack or threat of terrorist attack, war or threat or preparation of war.
- Acts of God, collapse of buildings, fire, explosion, inclement weather, storm, flood, subsidence, drought, epidemic or natural disaster.
- Impossibility of use of railways, shipping, aircraft, motor transport or other means of public or private transport.
- Impossibility of use of public or private utility networks or telecommunications.
- The acts, decrees, legislation, regulations or restrictions of any government, whether national or local.
- Strikes or labour unrest (other than in relation to Our own employees).

Consequence of delay

Consequence of delay caused by us:

2.2.4 You will be entitled to compensation if we cause significant or unreasonable delay due to factors within our control.

2.2.5 In the case of severe delays to the delivery of goods or installation for reasons that are within our control, we will notify you as soon as reasonably possible and agree with you an alternative delivery date. We will take steps to minimise the delay and if the delay lasts for more than 60 days, from the original delivery date, we will allow you to cancel the contract as detailed in section 9.2 and 9.3 of this Contract. Refunds made will be less any fees or charges due for the preparatory work completed so far.

Consequences of delay caused by you:

2.2.6 We will seek to accommodate small delays without recourse to compensation.

2.2.7 If any delay caused by you means that we incur extra costs then we will adjust the price accordingly. The hourly and daily costs that result from any unexpected work are described in the proposal.

3 OUR OTHER OBLIGATIONS

3.1 We will carry out the work and all communication with you according to the (HIES) Consumer Code.

3.2 We will ensure that the installation complies with the relevant MCS installer standard which in this case is MIS 3002.

3.3 We will advise on any additional measures that may be beneficial to the performance and durability of the system in relation to the protection from a) Flora b) Fauna.

3.4 Where self-consumption is quoted with an electrical energy storage system (EESS) we shall make it clear if we are not certified in accordance with MIS 3012.

3.5 Once the installed system is commissioned, we will provide you with any guarantees, test certificates, and other relevant paperwork related to your goods and installation. We will aim to provide this when the system is commissioned, but certainly no later than 10 days after commissioning.

3.6 We will also give you all of the documentation required as detailed in the appropriate Microgeneration Installation Standard. This will include the certificate showing that the installation has been registered with the MCS Installation Database. We will give you this within 10 working days of the commissioning date.

3.7 The guarantees we give you will cover the goods and installation and will comply with the (HIES) Consumer Code. We will explain to you the terms of the guarantees both in writing and verbally.

3.8 We will ensure that the guarantees will be honoured should we fall into receivership, administration, or bankruptcy during the term of the installer's guarantee. Please see Section 8 of this contract for details.

4 YOUR PAYMENT OBLIGATIONS

Your main obligation to us is to make the payments due to us under the terms of this agreement.

The Deposit

4.1 You will pay us the deposit specified in the Proposal when you sign this agreement. The deposit cannot be more than 25% of the total contract price set out in the Proposal. Should you decide to cancel the contract within the 'Cancellation Period' (see section 1.3 of this Contract) we will return that deposit to you in full.

4.1.1 If you pay the deposit before we have inspected your house, and we find during that inspection that the installation cannot proceed, then we will refund that deposit to you in full within 14 days.

Advance payments

4.2 The Proposal we have given to you will explain when the invoices will be sent, the amount due for each payment and the payment due date.

4.3 We may require you to pay a further advance payment no more than 14 days before the agreed delivery or installation date, but only if this is explained to you in your Proposal. This further advance payment will only be used for works under this contract for example, for purchasing goods.

- if we do not deliver any goods to you before installation, then such a further advance payment, taken together with the deposit, will under no circumstances be more than 60% of the total price in the Proposal.

We may use your further advance payment to purchase goods and deliver them to you. If we do this, and only if title to those goods transfers to you, the sum used to purchase those specific goods will no longer represent an advance payment.

4.4 If we fall into receivership, administration, or bankruptcy, your deposit and advance payment, if any, will be protected as detailed in section 8 of this Contract.

Final Payment

4.5 We will issue you an invoice for the balance outstanding of the contract price. This will become due *only after* the installation has been commissioned.

4.5.1 In the event of any alleged minor defect with the goods or installation, you shall not be entitled to withhold more than a proportionate amount of the sum due. If you do withhold any amount after the due date because of any alleged minor defect, then you must give us as much notice as possible and state the reasons you are withholding the payment.

Consequences of late payment

4.6 If you fail to pay the amount specified in an invoice by the due date, we may charge interest until the full amount is paid. The interest rate we charge will be 3% above the base rate set by the Bank of England.

Late payment of advance or 'interim' payments

4.6.1 If we do not receive payment by the 7th day after payment is due, we may give you written notice that we intend to stop work on the installation.

Once we have sent you this written notice, we may suspend all work until payment is received.

4.6.2 If you are in breach of this Contract because you have failed to make an agreed payment, and we have suspended work on the installation, then we may be entitled to recover any additional costs we incur. We will provide you with written notice containing full particulars of any claim for compensation within 21 days of any suspension of work.

4.6.3 We may require you to return the goods to us. You will be required to arrange delivery of the goods to us and the cost of this will be paid by you. If you fail to do this, we will take legal proceedings to recover the goods or their outstanding value.

5 YOUR OTHER OBLIGATIONS TO US

5.1 We will advise you on the approvals and permissions that you may need in relation to your PV system installation. It is your responsibility to obtain all relevant permissions such as planning permissions, building regulations, local authority permits and approvals, landlord approval or deed of convent. All necessary permissions must be obtained before we start work on the installation.

If we ask to see those permissions (and related drawings and/or specifications) you must make sure they are readily available to us. Where a mechanical installation is on a flat roof (Flat roofs are defined as those with an angle less than 10° to the horizontal) where the waterproofing membrane is penetrated, and the roof is under its original warranty, then the roof warranty provider should be consulted to ensure that warranties are not invalidated.

Supply of services

5.2 You must provide the following for our use free of any charge:

- water, washing facilities, and toilets;
- electricity supply;
- adequate storage space;
- safe and easy access to your property from the public highway;
- easy access to the location within the property where the installation is to take place by removing all belongings and obstructions.

5.3 You, or a contractor of your choice, may need to carry out preparatory work before the installation described in the Proposal can start. If so, we will provide this to you in writing. This work must be finished before the agreed date on which installation work is due to start. This work must be undertaken by competent persons and must be of the necessary quality for the installation. If this preparatory work is not finished before the agreed date on which the installation is due to start, then the conditions described in clause 2.2.7 of this Contract will apply.

Additional charges

5.4 Should you be in breach of conditions set out in 4.1, 4.2 and 4.3 of this Contract, you may incur additional costs due to delay and/or provision of additional services. You may be required to pay reasonable compensation to cover those extra costs. If this happens then section 7 of this Contract will apply.

5.5. It is your responsibility to notify the Company of asbestos that may be on site which could affect the work that is carried out. An asbestos survey may be required before the commencement of work. Following the asbestos survey, any subsequent work required will be your responsibility and this must also be completed before our works begin. If asbestos in any form is suspected during the installation/works, work will be halted immediately and not restarted until suitable and sufficient tests have been carried out. If asbestos is present, it is your responsibility to instruct a licensed Contractor to remove this.

6 CHANGE OF WORK

6.1 If, after signing the contract, you want to change the work, you must consult with us first. We may be able to incorporate your changes into the installation provided that:

- it is technically possible;
- we have the necessary resources;
- the necessary permissions are in place.

6.2 If we agree to this change of work you must

- confirm your request in writing; and,
- do so within 14 days of when you first tell us.

6.3 We will then record any necessary or requested variations to the contract, which must be agreed and signed by you.

6.4 Every change that means extra or revised work (as opposed to changes that leave something out) may incur additional costs for you. We will try to keep those costs to a minimum.

7 UNEXPECTED WORK

7.1 The Proposal given to you details the daily costs that would be payable by you from any unexpected work due to site conditions or special circumstances beyond our control.

7.2 Where unexpected work arises, we will advise you and ask how you want us to proceed. If you want us to continue, then section 6.3 of this Contract will apply.

8 DELIVERY AND TITLE AND RISK

8.1 We will deliver the goods to the location detailed in the Proposal. Where products and materials are delivered, or stored at the installation site, you shall not be liable for the inspection, storage or handling of those goods. However, this does not preclude us asking you to verify receipt of the goods in general terms such as what has been delivered and any visual signs of damage.

8.2 In case we fall into receivership, administration, or bankruptcy before we deliver the goods to you, we will insure the money you pay us in advance.

Any deposits and/or advance payments you make to us, up to 25% of the value of the contract or £5000 (whichever is the lower amount) will be insured through (HIES).

We will provide you with details of the insurance scheme we use and you will receive policy documentation directly from the provider once you have signed the Contract.

8.3 We will also ensure that our guarantees will be honoured should we fall into receivership, administration, or bankruptcy during the term of the installer's guarantee period.

The Client Account

8.4 We may place any payments/deposits made before the goods have been delivered to your property into a special 'client' or other third-party account. We may also use the protected payment scheme which the Code administrator has arranged. This money can only be used for work carried out under this Contract.

8.4.1 If we should fall into receivership, administration, or bankruptcy then the money in that dedicated bank account (or held within the protected payment scheme) will be returned to you or passed to another supplier who will complete the work for you.

8.5 Where your money has been used to make specific purchases on your behalf, then legal title to those goods, or the proportion of them you have paid for, will pass to you. We will either deliver the goods to you or label them as belonging to you.

When we store the goods, we will keep them separate from our own goods and those of third parties. We will also keep the goods stored, protected, insured, and identified as your property until they are delivered to you. You must be able to inspect the goods and/or repossess them.

8.6 Goods belonging to us may be delivered to the site. If the Contract is terminated early for reasons detailed in section 9.3 of this Contract then, with reasonable notice, we will collect any goods delivered to you. 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 allow us to collect the goods, we retain the right to take legal proceedings to recover the goods or their value from you.

8.6.1 If the Contract is terminated early for reasons detailed under section 9.4 of this Contract then, with reasonable notice, you must return and deliver the goods to us. If this happens, you may have to pay compensation for reasonable costs or losses reasonably incurred. This may be deducted from any deposit or further advance payment you have already made.

8.7 Until ownership of the goods passes to you, you must:

- store the goods separately in such a way that they remain readily identifiable as our property;
- not destroy, deface, or obscure any identifying mark or packaging on or relating to the goods; and,
- maintain the goods in a satisfactory condition.

9 CONTRACT CANCELLATION

Your rights

9.1 Your rights to a cancellation period are detailed in sections 1.4 and 1.5 of this contract.

9.1.1 If you cancel this Contract outside of the cancellation period, then you may have to pay compensation for costs or losses reasonably incurred by Evolve Electrical Contractors Ltd. We will try to keep those costs to a minimum. We have a right to retain all or part of your deposit and further advance payments, if made, as a contribution. If the work has been completed, this could mean that you would have to pay a significant proportion of the agreed price.

9.1.2 If you wish for installation works to commence during the cancellation period then you must request this in writing, either by letter or email. We have enclosed an 'Express Request for Work to Commence' form within this Contract which can be used for your convenience. If we start the work on the installation and you later decide to cancel the Contract within the cancellation period, you may be responsible for the costs of the goods and services already supplied and for making good on the property.

9.2 If there is a serious delay to the delivery of goods or installation for reasons that are outside our control, or the system majorly differs from the original system design, then you will be entitled to cancel the contract and receive a full refund. This is in line with the Consumer Code and the Supply of Goods and Services Act 1982.

9.3 Additionally, if we are in serious breach of our obligations as detailed in this Contract then you have a right to:

- cancel the contract and receive an appropriate refund; or,
- request a repair or a replacement; or,
- ask for compensation.

You can seek these remedies if what we supply or install is faulty, incorrectly described, or not fit for purpose. You cannot seek these remedies if you change your mind about the contract or you decide you no longer want some or all of the components.

Our rights

9.4 If you are in serious breach of your obligations as set out in this Contract and you fail to remedy that breach within 14 days of receiving written notice from us about that breach, then we have the right to cancel the contract. We must give you reasonable opportunity to put right the alleged breach.

9.5 If we suffer a loss as a result of your breach of contract, we will take reasonable steps to prevent the loss increasing. If your breach of contract leads to a cancellation, then you may have to pay compensation for reasonable costs or losses reasonably incurred by Evolve Electrical Contractors Ltd.

10 COMPLAINTS POLICY AND COMPLAINTS PROCEDURE

The (HIES) Consumer Code sets out the procedure for raising and resolving disputes between Consumers and Code Members. This section of the Code, and the Dispute Resolution Process, sets out the process which we and the Code Administrator will follow when made aware of a Complaint.

All of our staff are aware of our complaints procedure and know what to do if a complaint is received. Our Complaints Policy contained herein is reviewed regularly and updated if necessary.

Complaints will be treated sensitively, confidentially and in accordance with the Scheme Rules and Code of Practice and in line with the General Data Protection Regulation (GDPR).

10.1 We aim to resolve complaints as quickly as possible and believe that, in most case, complaints can be resolved informally. As such please contact us as soon as possible if you have a grievance. We aim to investigate all complaints fairly, efficiently and within a reasonable timeframe. All complaints will be handled in a consistent manner and always in line with our complaints policy.

We view complaints as positive feedback and, where appropriate, will act constructively to avoid recurrence.

10.1.1 Complaints can be made verbally (by telephone or by person) and by email or letter. If you contact us by telephone 01484246684 or in person, be sure to make a note of the person you have spoken to.

10.1.2 Make a note of any resolution offered immediately and whether you are satisfied with the outcome.

10.1.3 We will ask if you are satisfied with the resolution and if your complaint was handled fairly and appropriately.

10.1.4 If you are not happy with the resolution offered, then you may make a formal complaint.

Formal Complaint

If, at any time, a dispute arises between you and us that cannot be resolved amicably, and/or if you are not satisfied with how we are handling your complaint, you may refer your case to HIES to request mediation at any stage (www.hiesscheme.org.uk).

10.2 To record a formal complaint you need to submit your complaint in writing and send to Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG

10.2.1 You will receive an acknowledgment within 3 workings days of Evolve Electrical Contractors Ltd receiving your written formal complaint.

10.2.2 Please be sure to include your preferred telephone number and email address for follow up by Evolve Electrical Contractors Ltd, if required to ensure we have fully understood your complaint.

10.3 Your complaint will be recorded in our complaints' log and assigned for investigation.

10.4 You will receive a detailed response within 14 workings days of Evolve Electrical Contractors Ltd receiving your written formal complaint, unless the investigation takes longer than this; for example if a site visit is required. In any case, you will receive a progress report and an expected date for when you will receive a final reply. This will be no longer than 14 working days later. We will arrange to inspect the system within 24 hours of being notified where you are without heating or hot water as a result of a situation that has led to the Complaint.

10.5 If you are not satisfied with the resolution offered by us or if you have not received a response from us you can escalate your case to the (HIES) by registering a Complaint.

10.6 Where the (HIES) determines that the Complaint falls within the remit of the Code and/or the MCS Certification Body has confirmed that its involvement in the technical aspects of a Complaint has concluded, the (HIES) will register and acknowledge the Complaint in accordance with their Dispute Resolution Process

10.7 We agree, in the event of dispute, we will exclusively attempt to resolve the dispute through the (HIES) alternative dispute resolution services.

10.8 Any mediation and conciliation is intended to reach a non-legal solution to the dispute in a reasonable timescale. If all avenues have been exhausted and we have been unabe to resolve the dispute through mediation, the complaint can be referred to the Dispute Resolution Ombudsman, who is entirely independent of HIES.

The Dispute Resolution Ombudsman can be contacted through www.disputeresolutionombudsman.org

10.9 An award made under any Dispute Resolution Process or Ombudsman review shall be final and binding on both Evolve Electrical Contractors Ltd and you, and enforceable.

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

10.11 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.

11 USING YOUR PERSONAL INFORMATION

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:

-Supply the Goods and Services to you

-Process any payments that you make for the Goods and Services, including if necessary, conducting credit reference check, or instructing debt collection agencies.

-Register your installation with any relevant bodies, including your deposit protection and insurance backed guarantee and any competent person scheme.

-Address any concerns or complaints that you have about the Goods and Services, including liaison with (HIES) or the Dispute resolution Ombudsman where the law requires us to share.

12 LIMITATIONS OF LIABILITY

Either party shall be liable for any death or personal injury caused by its negligence or any negligence of its subcontractor, any fraud or fraudulent misrepresentation committed by it and for any other loss of damage suffered by the other party which is a direct consequence of the relevant party's breach of its obligations under this Contract and whether in contract, tort (including negligence), breach of statutory duty or otherwise. In the event of loss or damage, the party suffering the loss or damage shall be required to take reasonable steps to mitigate the loss or damage.

OUR WARRANTY AND WORKMANSHIP GUARANTEE

The Warranty sets out the terms upon which Evolve Electrical Contractors Ltd offers warranty cover for the products they supply to its Customers, and for the installation services provided by us and our installers.

Terms defined in Evolve Electrical Contractors Ltd 's Terms and Conditions bear the same meaning when used in this warranty. Your attention is drawn to the Terms and Conditions attached, which includes provisions relevant to the warranty set out below.

1 Installation Services

We will warrant to you that the Installation Services will be performed by the appropriately qualified and trained installers using reasonable care and skill, to such high standard of quality 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 Installation Services

2.1 If you make a valid claim about our service in accordance with the Terms and Conditions, Evolve Electrical Contractors Ltd may arrange for the relevant Products to be reinstalled by any of our Registered or approved Installers. Alternatively, we will refund you the charge for the relevant part of the Installation Service (or a proportionate part of such charge).

3 Exceptions

3.1 This Warranty will only apply:

-If the Product has been installed by a Evolve Electrical Contractors Ltd Registered Installer and has been correctly used and maintained throughout the Workmanship Warranty Period.

-If you have informed Evolve Electrical Contractors Ltd of the alleged defect within the Warranty Period and within a reasonable period of discovery.

-No work has been carried out by any other party other than Evolve Electrical Contractors Ltd.

4 General Conditions

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

4.2 You agree 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 Expertise

5.1 Any dispute as to whether a defect is covered by this warranty shall be immediately referred at the request of either party to the complaints service as detailed in the Terms and Conditions.

6 Third Party Rights

6.1 When Evolve Electrical Contractors Ltd has 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 Law

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 Manufacturer's Product Warranty

Most Products supplied by us come with the benefit of a manufacturer's product guarantee.

Where a claim is made to Evolve Electrical Contractors Ltd by you, in respect of any of the Products in accordance with the Terms and Conditions, Evolve Electrical Contractors Ltd will liaise with the manufacturer and use all reasonable endeavours to secure a replacement of the Product or the part in question. Alternatively, we will refund 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 to Evolve Electrical Contractors Ltd as the retailer of the goods supplied.

INVOICE

INVOICE TO:

M P Moran & Sons Ltd
Mr David Bellis
293-301 Kilburn High Road, London, NW6 7JR

Installation Address
302-306 West Green Road, London, England, N15 3QR

Invoice Date
19/12/23

Invoice Number
1404--1404L256-1

Reference
FSS254/1404L256

Invoice Status
Unpaid

Evolve Electrical Contractors Ltd
Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG

Telephone
01484246684

VAT Number
369992029

Company Registration
11859371

DESCRIPTION	QTY	UNIT PRICE	VAT	AMOUNT (£)
SUPPLY OF PHOTOVOLTAIC SYSTEM	1	20,000.00	20%	20,000.00
ELSTER THREE PHASE SMART METER	1	0.00	20%	0.00
SOLAX X3 THREE PHASE TL20000	1	0.00	20%	0.00
VAN DER VALK VALK DOUBLE 2 PANEL GROUND MOUNT	1	0.00	20%	0.00
TRINASOLAR 425W	48	0.00	20%	0.00
INSTALLATION OF PHOTOVOLTAIC SYSTEM	1	0.00		0.00

SUBTOTAL	20,000.00
VAT ()	0.00
VAT (20%)	4,000.00
TOTAL GBP	24,000.00

Due Date: 19/01/24

PAYMENT DETAILS

BANK: TSB BANK PLC Cloth Hall St Huddersfield

Sort-Code 771101

Account Number 00009355

Customer	Mr David Bellis
Invoice Number	1404--1404L256-1
Amount Due	£24,000.00

Due Date	19/01/24
Amount Enclosed	

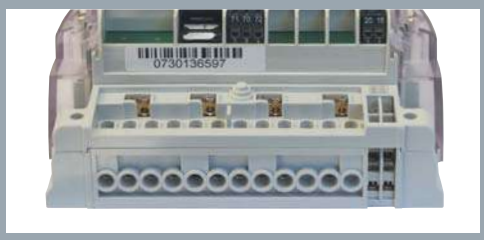
Enter the amount you are paying above

ISKRAEMECO

Energy Measurement and Management

MT375

Poly-phase AMR meter with GSM/SMS modem



MT375 – is targeted on deregulated energy markets and enables provision of an AMR services. **MT375** is a poly -phase meter intended for use in Commercial/Industrial and CoP5 applications. **MT375** incorporates a fully integrated, GSM/SMS modem. Integrated GSM/SMS modem can be exchanged with integrated RS485 communication interface for multi-site installations. It is a perfect combination of well-proven metering technology and state-of-the-art GSM/SMS communication modem, all integrated and sealed under a single enclosure. The integrated solution attains the same high quality and reliability of Iskraemeco meters. The meter is approved according to IEC 62052-11 and IEC 62053-21, ISO 9001, and designed according to even higher internal Iskraemeco standards, achieved on 60-year experiences of meter manufacturing and 55 million meters on the field installed worldwide.

kWh kVAh	Active/Reactive power
	Single or double direction
	CT operated meter
T(8)	Multi-rate registration
	Real-Time Clock synchronized by GSM
	Load profile – 1 & 2 channel
	Log-book
dlms	Communicaton protocol
i² - GSM™	AMR communication: GSM/SMS, GPRS

- Fully integrated GSM/SMS modem
- AMR on demand and alarm call-backs
- CoP5 compatible
- 'Fit and go' – simple, fast and easy installation procedure
- Multi-utility port for water, heat or gas meters reading
- Active/reactive, multi-rate metering
- Indication of operational statuses
- Very high EMC immunity

FUNCTIONAL AND TECHNICAL DATA

Automatic Meter Reading – GSM/SMS

– GSM modem is fully integrated into the meter
– Multiple frequency bands are supported including 1800 MHz, 900 MHz, 800 MHz and 1900 MHz
– High performance antenna is integrated into the meter

External antenna option
Available for installations with insufficient GSM signal.

SIM card exchange
SIM card can be hot-swapped and automatically registered with the service provider. The SIM connector is designed for high reliability contacting and is positioned under the meter terminal cover.

Automatic Meter Reading – RS485

Optionally up to 31 meters with an RS485 interface can be connected to one communication (1 km) loop.

Performance indicators

Metrological LED (imp/kWh)

Illuminated: meter is powered, no load current

Pulsating: load current is higher than starting value

Not illuminated: meter is not powered

LCD indicators

Modem communications statuses:
– 3-segment GSM signal level indicator
– Modem registered with the GSM network
– GSM communication in progress

Other indicators include phase voltage presence, tamper parameters and self-diagnoses parameters.

Self-triggered alarm call-back

The meter can send alarm messages if an alarm condition exists (e.g. after power failure).

Communications

– Integrated GSM/SMS modem supporting the IEC 62056-46 (DLMS) protocol
– RS485 interface (option): IEC 62056-46 (DLMS) protocol
– Optical port (IEC 62056-21) supporting the IEC 62056-21 (former IEC 61107) or IEC 62056-46 (DLMS) protocols

Local data display (LCD)

– Automatic or manual scroll mode
– Programmable data set and sequence
– Data identification according to OBIS (IEC 62056-61)

Tamper-proof features

The meter detects main cover and terminal cover opening, records it in a logbook and (optionally) triggers an alarm call.

Installation procedure

Fast and easy 4-step process, consisting of meter fitting, automatic connection check and communication verification.

Measured and recorded quantities

Active/Reactive energy: import (A+), (R+), export (A-), (R-) and absolute IAI

Maximum demand (Ti = programmable)

Power quality parameters: instantaneous voltage and current, under/over voltages, power-downs and cosφ

Multi-rate registration
– Programmable tariff structure (1…. 8 rates)
– Up to 4 seasons

Real-Time Clock

– Accuracy according to IEC 62052-21
– Day-light saving scheme
– Super Cap for power down back-up (up to 10 days)
– Periodically synchronised to the GSM network

Load Profile

– One or two channels with up to 16 captured objects
– Capacity of up to 200 days at Ti = 30 min
– Programmable LP period: 15, 30, 60 minutes or 1 day (other periods on demand)

Accuracy class (IEC 6205321)	2 or 1
Nominal current In (CT connected)	5 (6) A
Nominal voltage Un	3x230/400V
Voltage range	0,8 Un ... 1,15 Un
Nominal fraquency fn	50 Hz, 60Hz
Temperature range	-25 °C ... +60 °C
Extended temperature range	-40 °C ... +70 °C
Storage temperature	-45 °C ... +85 °C
Self-consump. current circuit	<0.5 VA
Self-consump. voltage circuit	<2 W / 10 VA
Isolation voltage	4 kV, 50 Hz, 1 min
Voltage shock	12 kV, 1.2/50 µs
Short circuit current	50 Imax
EMC burst test	(IEC 801-4) 6 kV
Optical port	IEC 62056-21
Dimensions	250 x 178 x 86 mm
Mass	1.3 kg

Log-book

Up to 128 meter events with time stamps.

Meter programming

All programming modes including meter SW downloading can be done locally (by an HHU) or remotely (by GSM) under the pre-defined security level access.

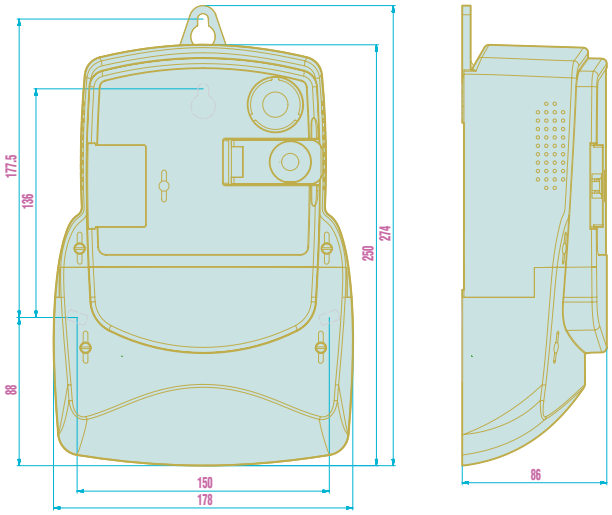
Multiutility AMR

M-bus input for reading gas, heat and water meters.

Enclosure

– Self–extinguishing polycarbonate
– IP 54 protection against water and dust

CASING DIMENSIONS



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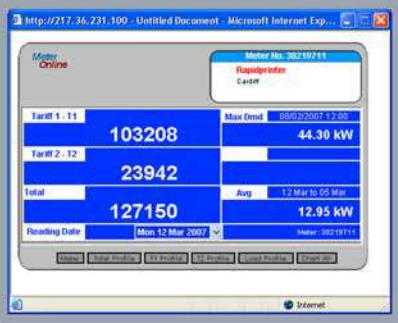
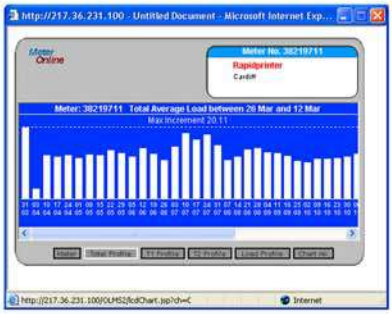
Automatic Meter Reading Service



www.meteronline.co.uk

Remote metering using web based mobile technology

Meteronline provides remote metering data to registered account holders via the Internet. Meters and loggers with integrated mobile communications technology transmit their readings via the mobile phone network. Meteronline collects this data from the mobile service providers and presents it to subscribers via the web.



- Load Profiles
- Daily, Weekly & Monthly Reading
- Automatic Billing
- Data Export
- Location Information Database
- Energy Management Displays
- Multi Tariff
- Web Browser Interface
- Easy to Use

- Online service registration
- No additional cabling or equipment needed on site
- Specialised software and commissioning not required
- Readings available at any location
- Installation by electrical contractors or meter installers

THREE PHASE INVERTERS FROM SOLAX

SOLAX POWER

SolaX have developed a range of three-phase inverters unrivaled in the industry for their quality, reliability and efficiency. The SolaX three-phase inverters boast a wide MPPT voltage range to allow for more energy harvesting and at 98.2% have the highest maximum efficiency available on the market today. In addition, all SolaX three-phase inverters are IP65 rated, have an integrated DC switch, WIFI as standard and an OptiCool temperature controlled fan.

X3
SERIES

SOLAX SOLAR INVERTERS

ZDNY-TL10000 / 12000 / 15000 / 17000 / 20000

High efficiency and wider usage

THREE PHASE DUAL MPPT

High performance

- MPPT efficiency up to *99.9%*
- Maximum efficiency up to *98.2%*
- Maximum DC input voltage of 1000V
- Dual MPP tracker and wide MPPT voltage range for more flexibility

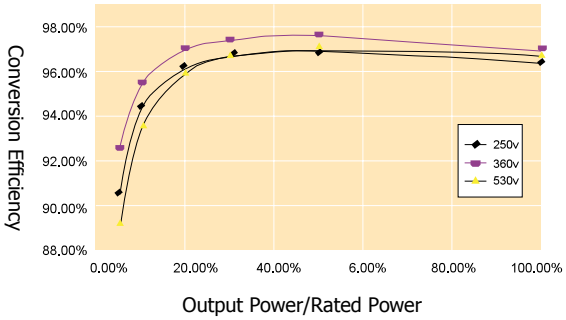
Flexible & reliable

- Integrated DC switch
- 'OptiCool temperature controlled fan
- IP65 for indoor & outdoor use
- Multiple protections: RCD, ISO, over voltage, and earth protection

User-friendly

- Multi-lingual display
- Backlit 16 x 2 characters LCD screen
- RS485, WIFI and 3G (optional) communication for monitoring
- "Plug and play" connection for easy installation and maintenance

Efficiency Curve



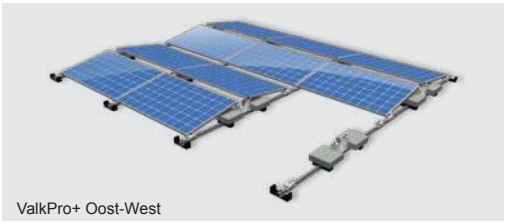
TECHNICAL DATA

INVERTER MODEL	ZDNY-TL10000	ZDNY-TL12000	ZDNY-TL15000	ZDNY-TL17000	ZDNY-TL20000
INPUT (DC)					
Max. Recommended DC Power (W)	10260	12300	15370	17420	20500
Max Turn On DC voltage (V)	1000	1000	1000	1000	1000
Max. Input Current (A)	A:22/B:11	A:22/B:11	A:22/B:22	A:22/B:22	A:22/B:22
MPPT Voltage Range (V)	320-800	380-800	350-800	400-800	400-800
Min. DC Voltage/Start Voltage (V)	220/250	220/250	220/250	220/250	220/250
Number of MPP Trackers/Strings per MPP Tracker	2/A:3 B:1	2/A:3 B:1	2/A:3 B:3	2/A:3 B:3	2/A:3 B:3
OUTPUT (AC)					
AC Nominal Power (W)	10000	12000	15000	17000	20000
Max. AC Power (W)	10000	12000	15000	17000	20000
Nominal AC Voltage Range (V)	3/N/PE 230/400; 160-280				
AC Grid Frequency; Range (Hz)	50; 44-55				
Max. AC Current (A)	16	20	24	25	29
Power Factor (Full Load) –leading/lagging	0.9/0.9				
Total Harmonic Distortion (THD)	<3%	<3%	<3%	<3%	<3%
EFFICIENCY					
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%
Euro Efficiency	97.6%	97.6%	97.6%	97.6%	97.6%
Max Efficiency	98.2%	98.2%	98.2%	98.2%	98.2%
POWER CONSUMPTION					
Input Standby Power (W)	<10	<10	<10	<10	<10
Internal Consumption (Night) (W)	<1	<1	<1	<1	<1
SAFETY & PROTECTION					
DC Disconnect	YES				
Internal Overvoltage Protection	YES				
DC Current/Insulation Monitoring	YES/YES				
Grid Monitoring/Earth Fault Monitoring	YES/YES				
Islanding Protection	YES				
RCD Protection	YES				
Protection Class/Overvoltage Category	IEC62103 (1) / IEC60664-1 (3)				
ENVIRONMENT LIMITS					
Degree Of Protection	IP65 (IP54 for fan)				
Operating Temperature Range (°C)	-20~60 (derating at 45)				
Humidity (%)	0~95 (non-condensing)				
Altitude (m)	2000				
Storage Temperature (°C)	-20~60				
Noise Emissions (dB)	<50				
OTHER					
Dimensions WxHxD (mm)	513x651.5x207				
Weight (kg)	48	48	50.5	50.5	51
Cooling Concept	'OptiCool' temperature controlled fan				
Topology	Transformerless				
Communication Interfaces	RS485/RS232/WiFi (standard)				
LCD Display	Backlit, 16x2 character				
Certification (UK)	G59/3				
Standard Warranty	10 years from manufacturer				

SolaX UK Ltd.

t: 0845 689 6009 / e: info@solaxuk.co.uk / w: www.solaxuk.co.uk


ValkPro+


ValkPro+ Oost-West

Datasheet ValkPro+ | ValkPro+ East-West

The concept

- Mounting system for PV-panels on flat roofs (commercial and domestic).
- For south and east-west configurations.
- Fixed tilt angle of 10° (Landscape or Portrait) and 15° (Landscape).
- Low ballast, shielded system with wind deflectors (south).

ValkPro+ vs. competitive systems

- Most cost effective solution.
- All metal connections, no plastic. This ensures high strength and reliability and makes the system easy to ground and for equalization of potential.
- Also suitable for roofs higher than 25 mtrs.
- Can be placed with ballast only on flat roofs with a maximum slope up to 5°. On roofs with a bigger slope, the system needs to be fixed to the roof.
- Universal integrated panel clamps (28-50 mm frame height).
- Suitable to be placed on roofs with gravel, “green roofs” or fixed on steel structures above the roof.
- Elevated mounting on roof for guaranteed drainage.

Additional features

- Designed and calculated according to latest building regulations.
- Low ballast and roof load, thanks to the use of wind deflectors and coupled rows.
- Easy and fast installation, thanks to limited number of parts and screw joints.
- Maximum logistical advantage, thanks to limited number of different parts and dimensions.
- Smart solutions to hold cables and cable baskets.
- Easy to disassemble.

Panel formats

- ValkPro+ (south & east-west) is standard applicable for panels with the following dimensions:

Configuration	Panel length min [mm]	Panel length max [mm]*	Panel width min [mm]	Panel width max [mm]	Pitch [mm]
L10° South	1520	2320	977	1200	1500
L10° East-West	1520	2320	977	1070	2300
			1071	1120	2400
			1121	1200	2500
L15° South	1520	2320	977	1200	1500
L15° East-West	1520	2320	977	1090	2300
			1091	1140	2400
			1141	1200	2500
P10° South	1559	2200	900	1500	2300
P10° East-West	1559	1680	900	1500	3500
	1681	1730	900	1500	3600
	1731	1830	900	1500	3800
	1831	2035	900	1500	4200
	2036	2135	900	1500	4400

* *Larger panel sizes are often also possible to mount on ValkPro+. Please contact Van der Valk Solar Systems for possibilities.*

CONTACT DETAILS | DEVELOPER AND PRODUCER OF SOLAR MOUNTING SYSTEMS

Van der Valk Solar Systems + *International*
Zwartendijk 73 - 2635 BG Den Hoorn, The Netherlands
+31 174 25 49 99
sales@valksolarsystems.com

Valk Solar Systems UK + *IE*
+44 1304 89 76 58
sales@valksolarsystems.co.uk

Valk Solar Systems Ibérica
+34 699 326 544
ventas@valksolarsystems.es

Valk Solar Systems Nordics
+46 7 24 41 60 82
sales@valksolarsystems.se

Preliminary

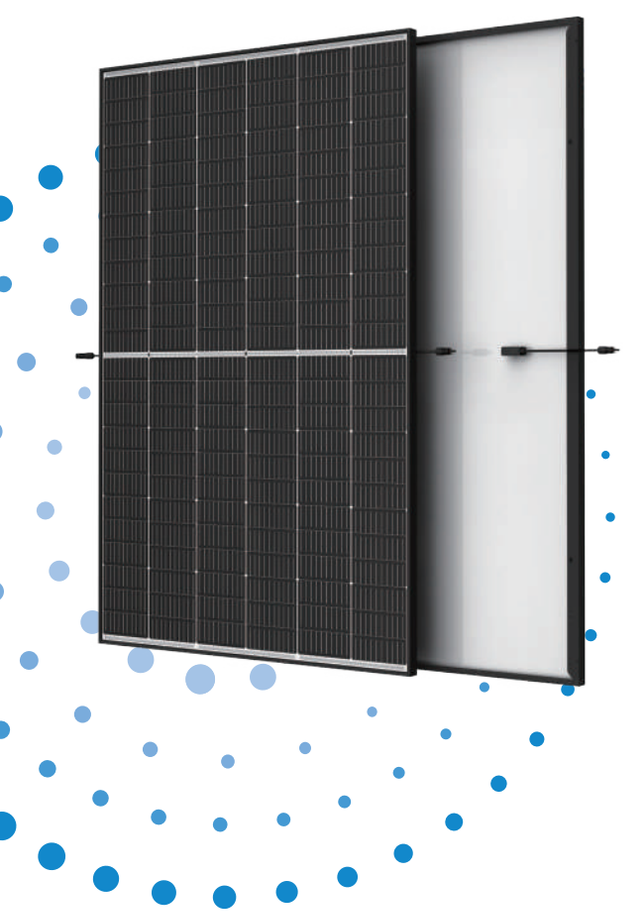
Vertex S

BACKSHEET MONOCRYSTALLINE MODULE

PRODUCT: TSM-DE09R.08

PRODUCT RANGE: 415-435W

435W	0~+5W	21.8%
MAXIMUM POWER OUTPUT	POSITIVE POWER TOLERANCE	MAXIMUM EFFICIENCY



Small in size, big on power

- Small form factor. Generate a huge amount of energy even in limited space.
- Up to 435W, 21.8% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection
- Reduce installation cost with higher power bin and efficieny
- Boost performance in warm weather lower temperature coefficient (-0.34%) and operating temperature

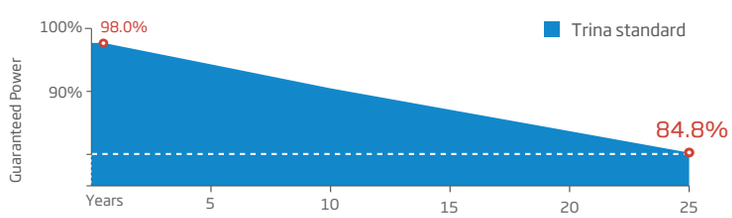
Universal solution for residential and C&I rooftops

- Designed for compatibility with existing mainstream optimizers, inverters and mounting systems
- Perfect size and low weight. Easy for handling. Economy for transporting
- Diverse installation solutions. Flexible for system deployment

High Reliability

- 15 year product warranty
- 25 year performance warranty with lowest degradation;
- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Mechanical performance up to 6000 Pa positive load and 4000 Pa negative load

Trina Solar's Backsheet Performance Warranty



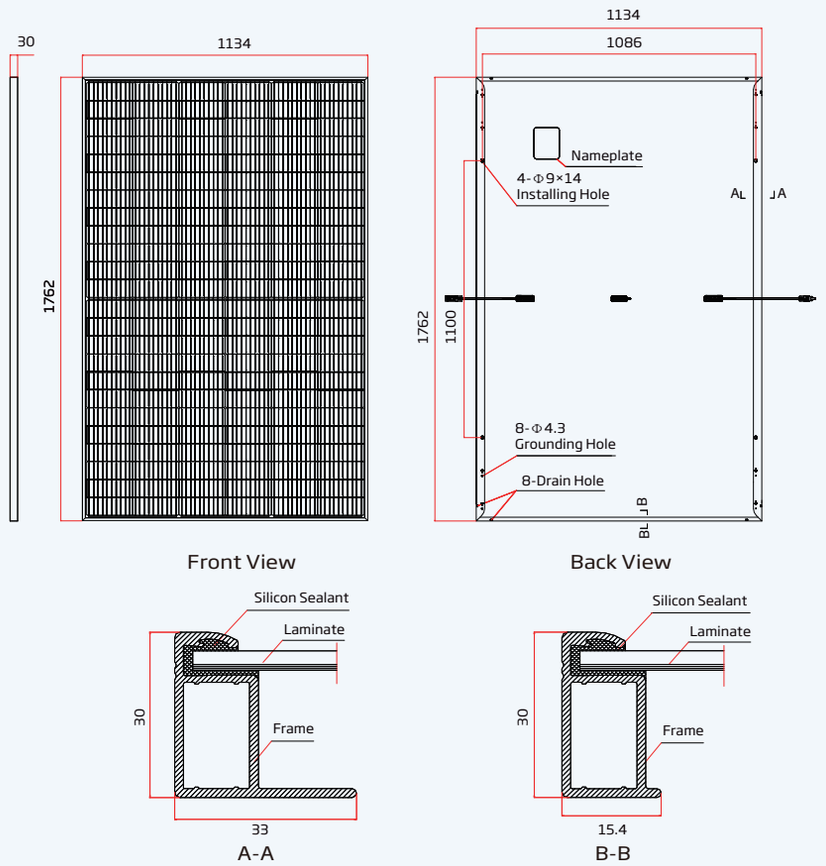
Comprehensive Products and System Certificates

IEC61215/IEC61730/IEC61701/IEC62716/UL61730
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse Gases Emissions Verification
ISO45001: Occupational Health and Safety Management System

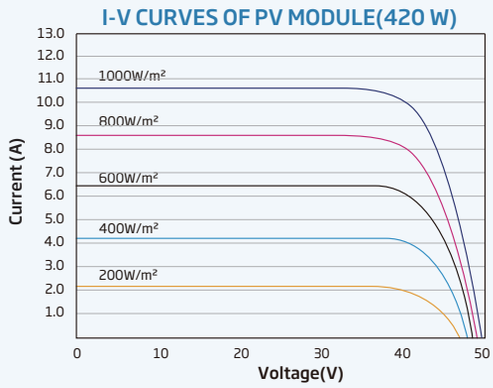
Trinasolar

Vertex S BACKSHEET MONOCRYSTALLINE MODULE

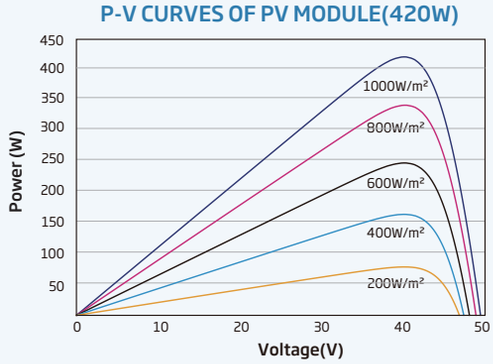
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(420 W)



P-V CURVES OF PV MODULE(420W)



ELECTRICAL DATA (STC)

Peak Power Watts-PMAX (Wp)*	415	420	425	430	435
Power Tolerance-PMAX (W)			0 ~ +5		
Maximum Power Voltage-VMPP (V)	41.0	41.3	41.5	41.8	42.0
Maximum Power Current-IMPP (A)	10.11	10.17	10.24	10.30	10.36
Open Circuit Voltage-VOC (V)	49.4	49.7	49.9	50.3	50.6
Short Circuit Current-ISC (A)	10.64	10.69	10.74	10.81	10.86
Module Efficiency η m (%)	20.8	21.0	21.3	21.5	21.8

STC: Irrdiance 1000W/m2, Cell Temperature 25°C, Air Mass AM1.5. *Measuring tolerance: ±3%.

ELECTRICAL DATA (NOCT)

Maximum Power-PMAX (Wp)	313	317	321	325	329
Maximum Power Voltage-VMPP (V)	38.5	38.8	39.1	39.4	39.6
Maximum Power Current-IMPP (A)	8.13	8.17	8.21	8.26	8.30
Open Circuit Voltage-VOC (V)	46.5	46.7	46.9	47.3	47.6
Short Circuit Current-ISC (A)	8.58	8.62	8.66	8.71	8.75

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA

Solar Cells	Monocrystalline
No. of cells	144 cells
Module Dimensions	1762×1134×30 mm (69.37×44.65×1.18 inches)
Weight	21.8 kg (48.1 lb)
Glass	3.2 mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	EVA/POE
Backsheet	White
Frame	30mm(1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²), Portrait: 350/280 mm(13.78/11.02 inches) Length can be customized
Connector	MC4 EVO2 / TS4*

*Please refer to regional datasheet for specified connector.

TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of PMAX	- 0.34%/°C
Temperature Coefficient of VOC	- 0.25%/°C
Temperature Coefficient of ISC	0.04%/°C

MAXIMUMRATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
	1500V DC (UL)
Max Series Fuse Rating	20A

WARRANTY

15 year Product Workmanship Warranty

25 year Power Warranty

2% first year degradation

0.55% Annual Power Attenuation

(Please refer to product warranty for details)

PACKAGING CONFIGUREATION

Modules per box: 36 pieces

Modules per 40' container: 936 pieces

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

Version number: TSM_EN_2022_PA2

www.trinasolar.com

MCS Certificate

MCS INSTALLATION CERTIFICATE NO. MCS-01854489-U

CERTIFICATE VERSION 1

15/01/2024

INSTALLER DETAILS

MCS Certified Installer Company Name and MCS Number
Evolve Electrical Contractors Ltd (NAP60540)
TSI Consumer Code: HIES
TSI Consumer Code ID: EEC/A/0862

INSURANCE BACKED GUARANTEE

Installer To Raise An IBG With Another Provider, Or, An Installer Is Not Required To Raise An IBG For The Installation

INSTALLATION DETAILS

Total Installed Capacity (kW): 20.00
Estimated Annual Generation (kWh): 16363.00
Green Deal Installation: No
Planning Regulations Compliance: Planning Permission Granted
Building Regulations Notification: After The Installation Through A Self Certification Competent Persons Scheme (CPS)

Installer Project Number: FSS254/1404L256

SITE DETAILS

Address: 301-305 West Green Road, Haringey, London, N15 3QR

Supply MPAN: 1234567891011

Commissioning Date: 05/01/2024

Installed on Pitched Roof? (≥10º and ≤70º):
Not Applicable

PRODUCT DETAILS

TECHNOLOGY TYPE: SOLAR PHOTOVOLTAIC

MCS PRODUCT NUMBER	PRODUCT MANUFACTURER	MCS CERTIFIED PRODUCT NAME
MCS PV0183/1870	Trina Solar Co., Ltd.	TSM-420DE09R.05 1762X1134x30
MCS PV0183/1870	Trina Solar Co., Ltd.	TSM-420DE09R.05 1762X1134x30
MCS PV0183/1870	Trina Solar Co., Ltd.	TSM-420DE09R.05 1762X1134x30
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MCS PV0183/1870	Trina Solar Co., Ltd.	TSM-420DE09R.05 1762X1134x30

MCS INSTALLATION CERTIFICATE NO. MCS-01854489-U

CERTIFICATE VERSION 1

15/01/2024

GENERATION METER DETAILS AND ADDITIONAL INFORMATION

Generation Meter Make(s):
Emlite

Generation Meter Model(s):
ECVA.2

Generation Meter Serial Number(s) (MSN):
EML2345179145

Generation Meter Reading(s) (as commissioning date):
000000

Installation Type:
Not Stand Alone

Declared Net Capacity (kW):
20.00

DNO Notification Compliance:
Consent To Connect Obtained Prior To Connection And Commissioning

MCS
CERTIFIED

Consumer Information Sheet

Congratulations on your MCS certified Installation

Like many people in homes and communities across the UK, you have taken the positive step of having a home-grown energy system installed in your property. What's more, you've chosen to work with an MCS certified Installer.

Who are MCS?

MCS is a mark of quality, ensuring that the products used, and your installation meet the highest standards.

MCS as a quality assurance scheme aims to promote consumer interests by setting out the principles of effective customer service and protection.

Grants and incentives

To promote the uptake of small-scale renewable and low-carbon technologies, there are a range of incentives and grants available.

MCS certification is a route for consumers to access incentives. To find out more please visit: https://mcscertified.com/grants-and-incentives/ or call the MCS Helpdesk.

What to do if things go wrong

Even the very best Installer can sometimes make mistakes. You may have a complaint with the pre-sales process, contractual issues or concerns about the compliance of your MCS certified installation.

If you do have a complaint, you must firstly contact your MCS certified Installer. You should document your communication and give them the opportunity to resolve the issue.

If it isn't adequately resolved, you can then escalate it to us and we will support you with reaching a resolution. To find out more please visit https://mcscertified.com/complaints-compliance/

Handover pack

Your installer should have issued you with a Handover Pack when your system was completed. If you didn't receive this, please ask your installer to provide it.

Useful contacts

The MCS Helpdesk operates to help customers before, during and after the installation of their renewable technology. Call the MCS Helpdesk: 0333 103 8130 or email: hello@mcscertified.com

The Certification Body who certified your Installer: NAPIT

The Consumer Code that your Installer is registered with: HIES

CERTIFIED

ValkPVplanner

Project report

Waxman Energy Ltd
Grove Mills
Elland
United Kingdom of Great Britain and Northern Ireland
https://www.waxmanenergy.co.uk

Project name	: WEL18101V2-300-306 WestGree
Date (modified)	: 12-07-2023
Time (modified)	: 14:34
Company	: Waxman Energy Ltd
User	: Will Jones
Version ValkPVplanner	: 2.16.71

Index

Location information

Project	: WEL18101V2-300-306 WestGree
Project location	: W Green Rd, London N15 3QR, UK
Terrain category	: Town
High neighbouring	: No
Wind area	: 22 m/s
Snow zone	: 0.5 kN/m²
Altitude above sea	: 19 m
Distance to shore line	: 59 km
Distance to edge of the city	: 1 km
Peak wind pressure	: 818,85 N/m²
Calculated load on panel due to wind and snow	: 540,31 Pa

Project overview

Building	No. of PV-panels	Power [kWp]	System type	Weight of mounting system [kg]	No. of FULL tiles*	No. of HALF tiles**	Weight of ballast [kg]
Building 1	**48**	**20,40**		**690**	**273**	**0**	**2.457**
Building 1 - Area 1 - Default Subarea 1	48	20,40	ValkPro+	690	273	0	2.457
Total project	**48**	**20,40**		**689**	**273**	**0**	**2.457**

Tiles are included for all flat roof systems selected in this project.

Notes: The results in this project report can be based on default values. Please check if all values are correct.

Bill of Materials - Total project

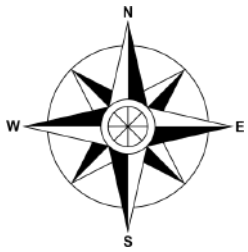
Article no.	Description	Package Qty.	Building 1	Total
729622	Rubber tile carrier - click - ValkPro+	35	109	109
741802300	Galv roof carrier L=2300x1,5mm	100	61	61
7506301545G	Tile 30 x 15 x 4,5cm - 4,5kg - UK	104	0	0
7506303045G	Tile 30 x 30 x 4,5cm - 9kg - UK	52	273	273
774221	Ss hammerhead bolt M8x20mm + lock nut	100	37	37
724670	Alu rear foot ValkPro+ P10° middle	15	35	35
724671	Alu rear foot ValkPro+ P10° side	15	26	26
724660	Alu front foot ValkPro+ P/L10° middle	25	35	35
724661	Alu front foot ValkPro+ P/L10° side	25	26	26
742521	Galv back plate ValkPro+ P10° L=1360mm	100	48	48
742547	Galv mass carrier ValkPro+ P10° L=1359mm	100	92	92
773320	Ss thread-forming bolt M6x20mm - T30	100	139	139
742533	Galv side plate ValkPro+ P10° (right)	100	13	13
742532	Galv side plate ValkPro+ P10° (left)	100	13	13

The bill of materials shown on this page, refer to the materials needed for the total project.

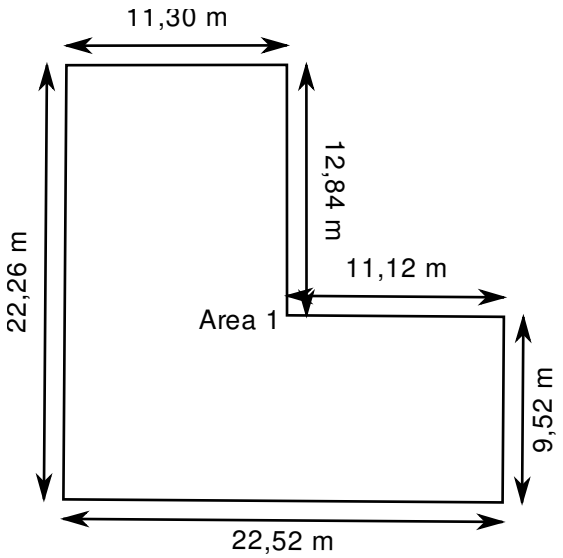
The Bill of Materials per individual roof area can be found in the dedicated chapters of this user manual.

Drawing total project

This drawing shows all the buildings of the total project including the different roof areas.



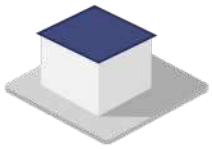
Building 1



Building information

Building name	: Building 1
Ridge height	: 16,50 m

Roof information



Roof type	: Flat
Roof material	: Bitumen
Gravel present	: No
Roof friction coefficient	: 0.6

System information

No. of panels south wall	: 48
Module	: Trina 425 DE09R.08 425w 1.762 x 1.134 x 0.030
Panel weight	: 21,80 Kg
Module orientation	: Portrait
Edge zone calculated	: 3,30 m
Edge zone adjusted	: 0,00 m
System choice	: ValkPro+
System colour	: Aluminium
Panel inclination	: 10
Azimuth	: 180
Foundation type	: Tile carrier
Include side plate	: Yes

System type

ValkPro+

Weight information

Weight of panels	:	1.046,40 kg
Weight of mounting system	:	689,23 kg
Weight of ballast	:	2.457,00 kg
Total weight	:	4.192,63 kg

System dimensions

Subarea dimensions	:	359,57 m²
System dimensions	:	126,41 m²

Roof loadings

Roof load based on subarea dimension	:	11,66 kg/m² (114,39 N/m²)
Roof load based on system dimension	:	33,17 kg/m² (325,37 N/m²)
Point load max. (max. ballasted points)	:	68 kPa (0,068 N/mm²)
Point load min. (min. ballasted points)	:	25 kPa (0,025 N/mm²)

Option to reduce point load of max ballasted point

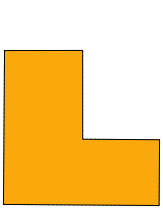
For projects where it is required to keep the point load to a minimum, there is the option to add load distributors for additional support of the ballasted points.
The following reduction of point load can be achieved:

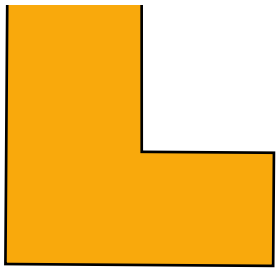
Point load reduction of the ValkPro+ system per ballast point		
Number of rubber load distributors per ballast point	Reduction of point load for ValkPro+ South	Reduction of point load for ValkPro+ East-West
0	0%	0%
1	71%	55%
2	73%	71%
3	88%	78%

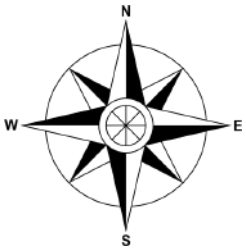
The load distributors can be ordered using the following codes:
729630 for standard roofs
729631 for PVC roof membrane

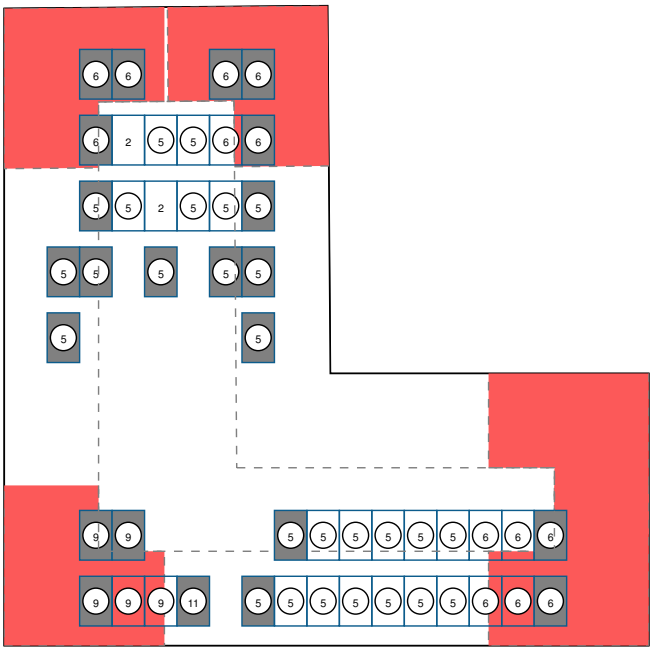
The bill of materials shown in this page apply to materials needed for Building 1 - Area 1 - Default Subarea 1

Article no.	Description	Package Qty.	Calc. Qty.	Extra Qty.	Total Qty.	Total weight
729622	Rubber tile carrier - click - ValkPro+	35	109	0	109	69,76
741802300	Galv roof carrier L=2300x1,5mm	100	61	0	61	235,89
7506301545G	Tile 30 x 15 x 4,5cm - 4,5kg - UK	104	0	0	0	0,00
7506303045G	Tile 30 x 30 x 4,5cm - 9kg - UK	52	273	0	273	2.457,00
774221	Ss hammerhead bolt M8x20mm + lock nut	100	37	0	37	0,96
724670	Alu rear foot ValkPro+ P10° middle	15	35	0	35	21,70
724671	Alu rear foot ValkPro+ P10° side	15	26	0	26	16,82
724660	Alu front foot ValkPro+ P/L10° middle	25	35	0	35	8,68
724661	Alu front foot ValkPro+ P/L10° side	25	26	0	26	7,15
742521	Galv back plate ValkPro+ P10° L=1360mm	100	48	0	48	109,49
742547	Galv mass carrier ValkPro+ P10° L=1359mm	100	92	0	92	154,38
773320	Ss thread-forming bolt M6x20mm - T30	100	139	0	139	0,83
742533	Galv side plate ValkPro+ P10° (right)	100	13	0	13	31,79
742532	Galv side plate ValkPro+ P10° (left)	100	13	0	13	31,79
Total weight						**3.146,23 kg**









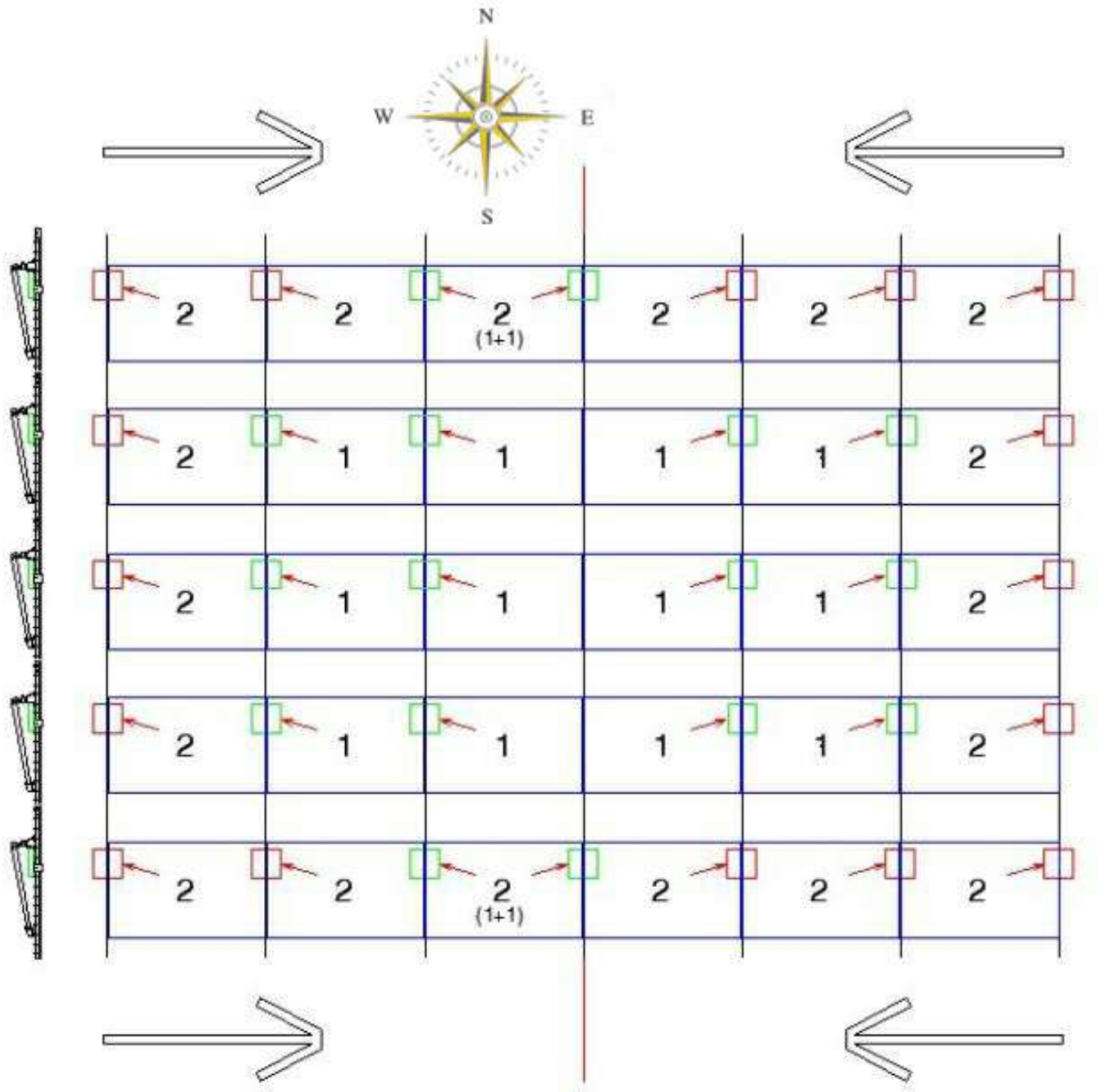
X	Panels with mass carriers Number represents FULL tiles.	
X	Panels with side plates and mass carriers Number represents FULL tiles.	
X	Panels with side plates Number represents HALF tiles. Use HALF tiles only.	
1 Tile = 30 x 30 x 4,5 cm | 9 kg 0,5 Tile = 30 x 15 x 4,5 | 4,5 kg		

Edge zone calculated: 3,30 m

Edge zone adjusted: 0,00 m

Dilatation line

Attention! When placing ballast: work from the outside edge of a row towards the centre. It is possible for one roof carrier in the middle of the row to have no ballast on it.



Placing ballast:

- Always work from the sides of the system inwards to the centre, when placing ballast
- In the centre row of the system (East to West), there is always on position without ballast (see red line)
- On this row, the ballast can be spread over the different positions (if possible)

Regulations

All solar mounting systems of Van der Valk Solar Systems have been designed, calculated and manufactured according to Eurocodes and NEN 7250 regulations and its derivatives (listed below). These regulations have been used for the calculations in the Project Report. Van der Valk Solar Systems meets the applicable CE requirements regarding 2001/95/EG product safety and the applicable sections of BRL9931, components for solar systems. Van der Valk Solar Systems pitched roof clamp systems are MCS012 approved (MCS BBA 0159).

- **EN 1990 Base of Structural design**
  National Annexes:
  - BS EN 1990:2002+A1:2005
  - DIN EN 1990/NA/A1
  - IS-EN 1990:2002+A1:2005
  - NBN EN 1990 ANB
  - NEN-EN 1990+A1+A1/C2/NB
  - NS-EN 1990:2002/NA:2008+A1:2010
  - PN-EN 1990:2004/NA
  - SFS-EN 1990/A1/AC
  - SS-EN 1990/A1:2005/AC:2010
- **EN 1991-1-3 Actions on structures / Snow load**
  National Annexes:
  - BS-EN 1990-1-3:2003
  - DIN EN 1991-1-3/NA
  - IS-EN 1991-1-3:2003
  - NBN EN 1991-1-3 ANB
  - NEN-EN 1991-1-3:2003
  - NS-EN 1991-1-3:2003/NA:2008
  - PN-EN 1991-1-3:2005/NA
  - SFS-EN 1991-1-3/AC
  - SS-EN 1991-1-3/A1:2015
- **EN 1991-1-4 Actions on structures / Wind load**
  National Annexes:
  - BS EN 1991-1-4:2005+A1:2010
  - DIN EN 1991-1-4/NA
  - IS-EN 1991-1-4:2005/NA:2013
  - NBN EN 1991-1-4 ANB
  - NEN-EN 1991-1-4:2005
  - NS-EN 1991-1-4:2005/NA:2009
  - PN-EN 1991-1-4:2008/NA
  - SFS-EN 1991-1-4+AC+A1
  - SS-EN 1991-1-4:2005/AC:2010
- **EN 1993-1-1 Design of steel structures / Rules for buildings**
- **N 1993-1-3 Design of steel structures / Rules for cold formed members**
- **EN 1997 Geotechnical design**
- **EN 1998-1 Design of structures / Seismic actions**
- **EN 1999-1-1 Design of aluminium structures**
- **NEN 7250 Solar systems - Integration in roofs and facades**
- **2001/95/EG Product safety**
- **BRL9931 Components of solar systems**

Wind tunnel testing

Van der Valk Solar Systems have elaborated the results of wind tunnel studies in the product design and calculation tools for both flat and pitched roofs. The application and interpretation of the results have been checked thoroughly and match the assumption and findings as laid down in reports W15328-1ERA-002 (dated December 5th, 2016), W15328-2ERA-007 (dated September 9th, 2018) and W15328-3E-RA-003 (dated June 13th, 2018) for flat roofs and WA 15328-!E-RA-002 (dated December 22nd, 2016) for pitched roofs.

Default values

- This project report is based on the input and results of the online calculation tool ValkPVplanner. The results derived from this tool were calculated with the greatest possible care. Nonetheless, it is possible that some information might not be entirely correct as the results for each project report can be based on default values. Please check carefully if all values are correct.

Safety instructions

- This ValkPVplanner project report is complementary to the Valk Solar Systems installation manuals, which show how to install the Van der Valk solar mounting system.
- The instructions provided in this ValkPVplanner project report must be observed at all times.
- All structural, safety and building regulations currently applicable must be observed.
- Solar mounting systems installed on roofs can be exposed to wind and snow conditions. This will result in additional pressure load of the installed PV system on the roof and building. A design calculation must be used to establish whether or not the roof and building, will be able to withstand the extra pressure load. Where necessary, modifications need to be made.
- To prevent flat roof systems from moving, lift or tip over, the system needs to be either fixed to the roof or weighed-up by ballast. The ballast calculated in this project report is of critical importance to ensure that the mounting system can be placed and used safely on the roof(s) in subject for this project report.
- Flat roof systems placed on a roof with an inclination of 5 degrees or more must be fixed to the roof.
- Restrictions apply for the position of the solar system on a roof. The solar panels must be placed at a the recommended distance from the roof edge, as shown in this project report.

Warranty

- Standard warranty for pitched roof, flat roof and ground mount systems is 10 years. This can be extended under certain conditions.
- The warranty provided is subject to the warranty conditions stated in the general terms and conditions supplied by Van der Solar Systems BV. Our terms and conditions can be found on our website: www.valksolarsystems.nl.

Disclaimer

- Van der Valk Solar Systems B.V. does not accept any liability for any direct and/or indirect consequences of any act (or omission) ensuing from the information or the failure to observe the instructions provided in this project report and the installation manual, nor for possible incorrect use of the ValkPVplanner by the customer.
- The calculations do not take into account obstacles in the near surrounding like high buildings, cliffs and mountains.
- For the full disclaimer of the ValkPVplanner, please visit our website.: www.valksolarsystems.nl.

Contact

- If you have any questions about the ValkPVplanner, calculation results or this project report: please contact the Van der Valk Solar Systems team.

On Roof Panel Layout

301-305 West Green Road, Haringey, London, N15 3QR

Dimensioning Plan

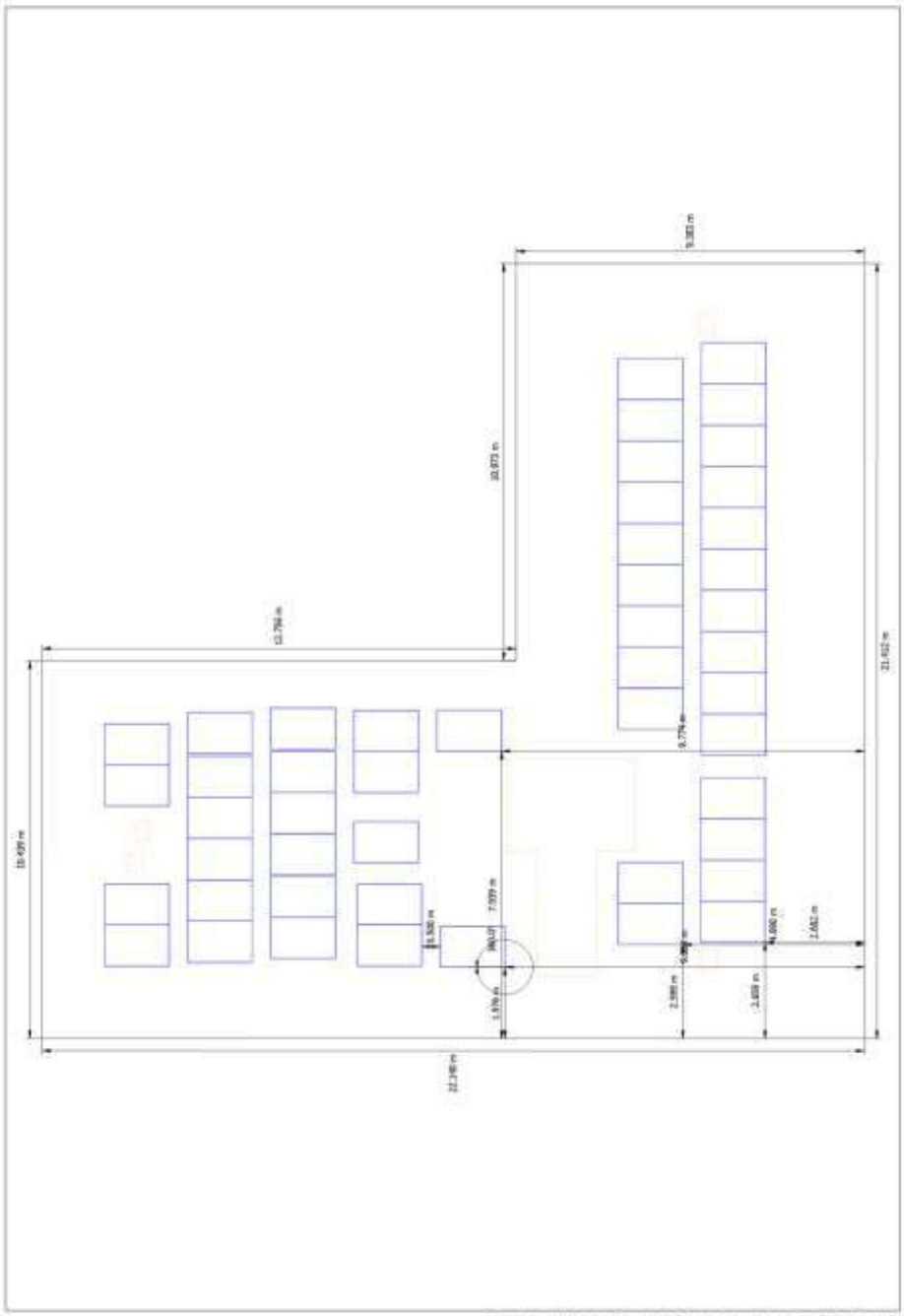


Figure: Arbitrary Building 01 - Mounting Surface South

PV Array Test Report

Report reference No: FSS254/1404L256	Evolve Electrical Contractors Ltd Aspley House Unit 3, Silver Street Huddersfield HD5 9GA
Installation adress: 301-305 West Green Road, Haringey, London, N15 3QR	
Test Date: 05/01/2024	**Inspector:** **David Mooney**
Description of work under Test: **Solar PV System**	**Test Instrument (s):** Seaword

String		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Array	**Module**	Trina Vertex 420 TS-DE09C.05															
	Quantity	14	13	10	11												
Array Parameters	**Voc (Stc)**	40.4	40.4	40.4	40.4												
	Isc (stc)	12	12	12	12												
String Over-current Protective Device	**Type**																
	Rating (A)																
	d.c Rating (V)																
	Capacity (KA)																
Wiring	**Type**	Solar Flex															
	Phase (mm2)	6															
	Earth (mm2)	N/A															
String Test	**Voc (V)**	675.7	625	332	578												
	Isc (A)	1.2	1.1	0.9	0.95												
	Irradiance																

Polarity Check		
Array Insulation Resistance	**Test Voltage (V)**	500
	Pos-Earth (MΩ)	>200
	Neg-Earth (MΩ)	>200
Earth Continuity (where fitted)		N/A
Switch Gear functioning Correctly		Yes
Inverter Make / Model		X3-Pro-20K-G2
Inverter Serial Number		MPT20T14764004
Inverter Functioning Correctly		Yes
Loss of Mains Test		

Comments:

Installation Adress:	Inspection by:	
301-305 West Green Road, Haringey, London, N15 3QR	David Mooney	
	Date:	Reference No:
	05/01/2024	FSS254/1404L256

General installation (electrical - ref IEC60364-6-61)

⁄	Equipment compliant with standards, correctly selected & not damaged
⁄	Equipment accessible for operation, inspection & maintenance
⁄	Equipmeent and accessories correctly connected
⁄	Particular protective measures for special location
⁄	Equipment and protective measures appropriate to external influences
⁄	System install to prevent mutual detrimental influence
⁄	Conductors connected and identified
⁄	Conductors selected for current carrying capacitybad voltage drop
⁄	conductors routed in safe zone or protected against mechanical damage
⁄	Presence of fire barriers, seals and protection against thermal effects

General installation (mechanical)

⁄	Ventilation proved behind array to prevent overheating / fire risk
⁄	Array frame & material corrosion proof
⁄	Array frame correctly fixed and stable; Roof Fixings weather - proof
⁄	Cable entry weather - proof

Protection against overvoltage / electric shock

⁄	Live parts insulated, protected by barrier / enclosure, placed out of reach or Class ll
N/A	Array frame equipotential bonding present (only relevant if required)
N/A	Surge protection devices present (only relevant if required)
N/A	RCD provided (only if rquired)
⁄	Pv strings fused or blocking diodes fitted (only rekevant if required)

d.c System

⁄	Physical seperation of a.c and d.c
⁄	d.c switch disconnector fitted (to IEC60364-712-536.2.2
⁄	d.c cables - protective and reinforced insuation (only relevant if required)
⁄	All d.c components rated for operation at max d/c system voltage (Voc stc x 1.25)
N/A	Pv strings fused or blocking diodes fitted (only rekevant if required)

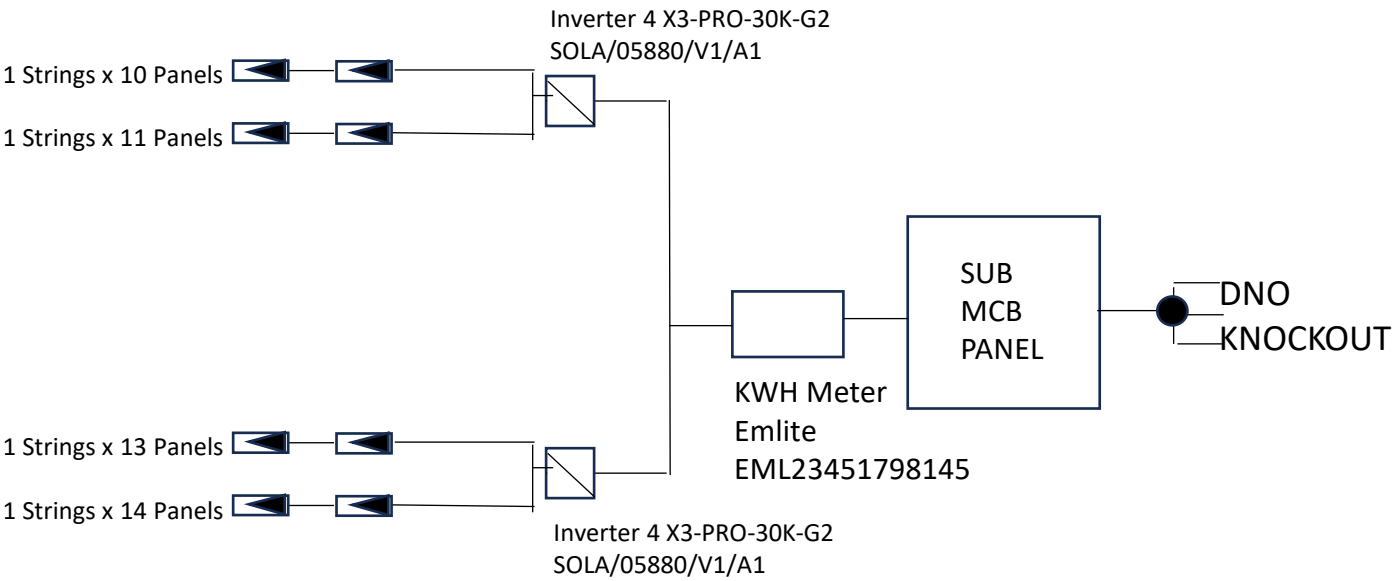
a.c System

⁄	a.c isolator locable in off position only
⁄	Inverter protection settings to local regulations

Labelling & identification

⁄	General labelling of circuits, protective devices, switches and terminals (to IEC6034-6-61
⁄	Pv Stystem schematic displayed on site
⁄	Protection settings & installer details displayed on site
⁄	Emergency shutdown procedure displayed on site
⁄	a.c isolator clearly labelled
⁄	d.c isolator / junction boxes suitably labelled
⁄	Signs & labels suitably affixed and durable

ELECTRICAL SCHEMATIC



KEY:
Trina Solar 420W
Solax Inverters

MP Moran
301-305 West Green Road
Haringey, London, N15 3QR

COMMISSIONING CERTIFICATE & CLAIM OF CONFORMITY

evolve ELECTRICAL CONTRACTORS LTD

INSTALLATION DETAILS

M P Moran & Sons Ltd
Mr David Bellis
302-306 West Green Road, London, England, N15 3QR

Commissioning Date
05/01/2024

Project Reference
FSS254/1404L256

Evolve Electrical Contractors Ltd
Aspley House, Unit 3, Silver Street, Huddersfield, England, HD5 9AG

Telephone
01484246684

PRODUCT INSTALLED	MCS/EEM REFERENCE	DEFECT WARRANTY	PERFORMANCE WARRANTY
TRINASOLAR 425W	PV00183/1861	15 years	25 years
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COMMISSIONING CERTIFICATE & CLAIM OF CONFORMITY

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TRINASOLAR 425W	PV00183/1861	15 years	25 years
TRINASOLAR 425W	PV00183/1861	15 years	25 years
TRINASOLAR 425W	PV00183/1861	15 years	25 years
ELSTER THREE PHASE SMART METER		16 years	0 years
VAN DER VALK VALK DOUBLE 2 PANEL GROUND MOUNT		15 years	0 years
SOLAX X3 THREE PHASE TL20000		10 years	0 years

COMMISSIONING CERTIFICATE & CLAIM OF CONFORMITY

We hereby certify that this system has been installed to meet the requirements of the Microgeneration Scheme, in accordance with Microgeneration Standard Document MIS 3002.

Maintenance should always be carried in conjunction with the manufacturer's instructions and only undertaken by a competent person, if in any doubt please contact **Evolve Electrical Contractors Ltd** on **01484246684** during normal office hours.

The performance of solar PV systems is impossible to predict with certainty due to the variability in the amount of solar irradiation (sunlight) from location to location and from year to year. The estimate is based upon the MCS Guide to the Installation of Photovoltaic Systems PV Standard (2012) and is given as guidance only. It should not be considered as a guarantee of performance.

We estimate your system output will be **18,849.60 kWh** per year (based on Installation of Photovoltaic Systems PV Standard (2012).

PRINT NAME	SIGNATURE	DATED
		05/01/2024
VERIFIED BY	**SIGNATURE**	**DATED**
		05/01/2024