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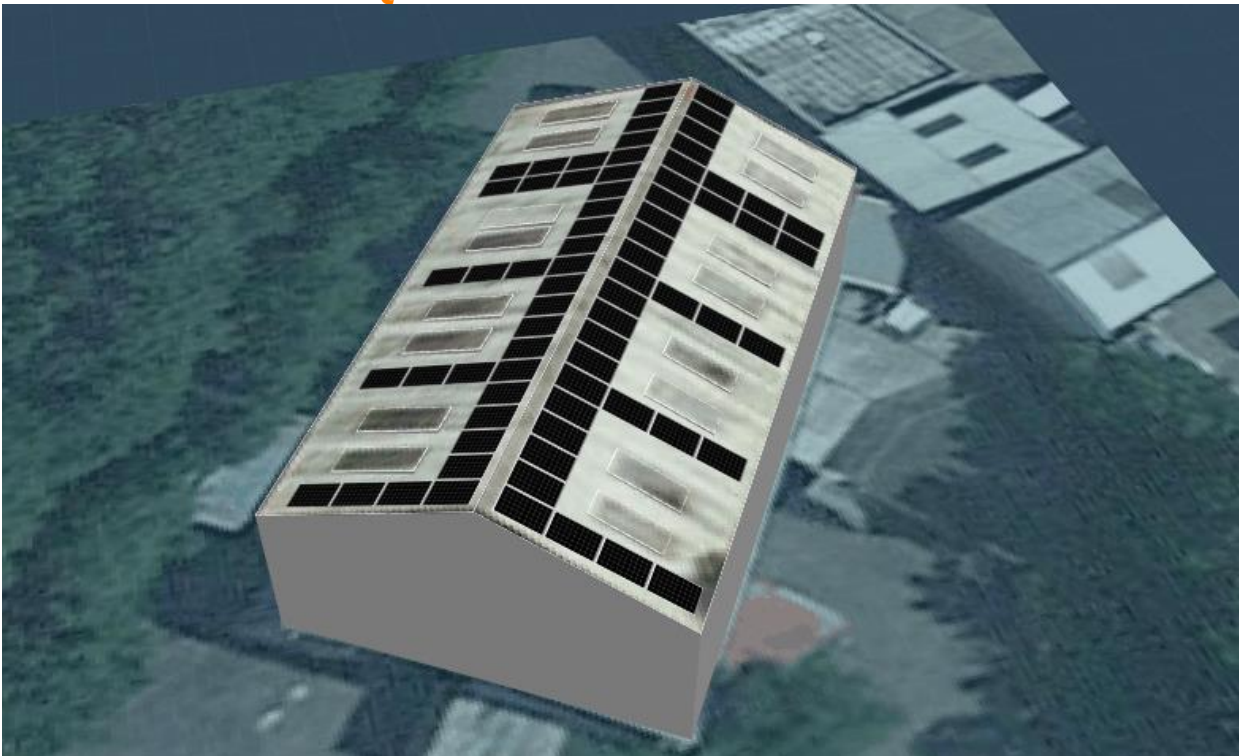
Commercial & Domestic Solar Photovoltaic Installations, Testing & Repairs

SOLAR PV QUOTATION

PROJECT: M Delacey & Sons

QUOTE NUMBER: 30.2 kWp

QUOTE DATE: 23/01/2023



Quote prepared by: Llewellyn Chapman

Checked By: Paul Williams

Validity: 30 Days

Vision solar accreditation: NIC 1170

Solar Photovoltaic Quote Proposal

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System Overview

PV Array

The photovoltaic modules we propose are made of high efficiency poly-crystalline silicon.

	MODULES	INVERTER 1	BATTERY
MODEL	450W	Growatt-MID-25KTL3-X	SMILE-T10
MANUFACTURER	Longi	Growatt	Alpha ESS
TOTAL ARRAY SIZE, KWP	30.2 kWp		24.6 kWh
NO OF UNITS	72 x	1 x	1 x
SIZE WP	450 W	25,000W	24,600 W
PV TYPE	Mono-Crystalline		
ACTIVE AREA OF PV (SQUARE METRE)	156.2m ²		
MODULE ORIENTATION	Portrait		
MOUNTING TYPE	Trapezoidal		
ANNUAL PREDICTED YIELD, KWH	179,010 kWh		
FIXINGS	Trapezoidal		
SYSTEM SIZE PER INVERTER, KWP	30.2 KWP		

The total system has a maximum power of **30.2 KWP** and covers an active module surface area of approximately **156.2m²**

Array summary

The table below summarises the components of your system.

1 Vision Solar Overview

1 Vision Solar is a leading renewable energy company both in South Wales and the United Kingdom, working to the highest quality and ethical standards. Our services range from Environmental impact assessment and planning consultancy for large developments to Electronic and electrical engineering, project management and system specification for Custom installations.



Relevant Accreditations

Micro-generation Certification Scheme, MCS
ISO9001: 2008 quality standard
NICEIC registered

Fixing Method

The modules will be secured to the roof structure via trapezoidal mounting system. Potential wind and snow loads are considered in determining the type and number of fixings used on the installation. A similar fixing arrangement can be seen below.



Inverters and DC wiring

Output from the PV modules is in DC current form, which is not compatible with the grid and grid fed appliances. The system requires inverter(s) to convert the DC current into an AC form. The inverter also tracks the maximum power point of the system to optimise the efficiency of the array. An image of a typical installation can be seen below.



DC wiring

DC cable from the PV array will be connected through a DC isolator to the inverter. The inverter and switchgear to be located in a suitable plant room

AC wiring

The inverter is connected to the distribution board using an MCB

Shading Issues

Solar PV systems should not be shaded if possible. Shading will reduce the amount of Energy produced by the system and therefore increase the payback time and reduce the income generated by the system. We have assessed the situation of the building and have Assumed that there will be less than 20% shading on the array modules.

Access and site details

Platform and edge protection to be supplied by others.

Distribution Network Operator requirements (DNO)

We need to obtain permission from the district network operator to connect the system to The grid. The inverter can be connected under ER G83/1 in this case.