

Solar PV Report



Chester Wool

Cassidy & Ashton

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Document Control Sheet

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Summary

ECS Consultants have undertaken a desk top Solar PV Calculation using PV*SOL premium 2023 for the proposed warehouse construction of Chester Wool.

The system shall be:

- All calculations are based upon products from 272 – 500W panels.
- It is proposed a solar PV system size of **136 kWp** is installed.
- The panels will be mounted flat onto the roof.
- This will achieve an annualised energy output of – **125,576 kWh/annum**
- The estimated cost of this system would be - **£190,400**

We anticipate that the payback of the system will be less than **XX** years.

Project Overview

PV System

3D, Grid-connected PV System

Values source	Meteonorm 8.1
PV Generator Output	136 kWp
PV Generator Surface	645.9 m ²
Number of PV Modules	272
Number of Inverters	1


Production Forecast

Production Forecast

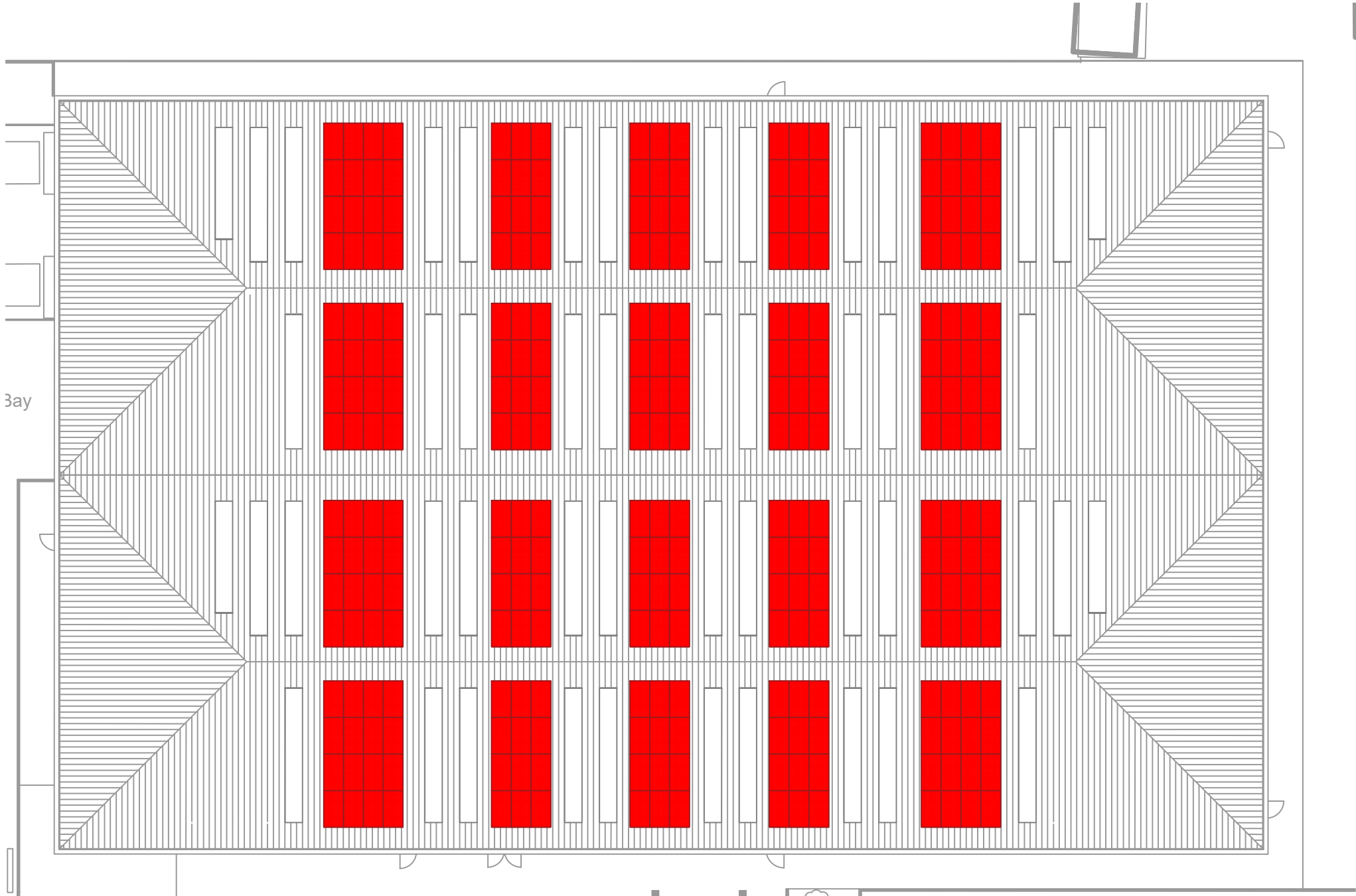
PV Generator Output	136.00 kWp
Spec. Annual Yield	923.19 kWh/kWp
Performance Ratio (PR)	91.11 %
Yield Reduction due to Shading	0.0 %
Grid Export	125,576 kWh/Year
Grid Export in the first year (incl. module degradation)	125,576 kWh/Year
Standby Consumption (Inverter)	23 kWh/Year
CO ₂ Emissions avoided	59,010 kg / year



Appendix 1

Solar PV Layout

SOLAR PV LEGEND	
SYMBOL	DESCRIPTION
	272 No. JA SOLAR 500W MONOCRYSTALLINE PHOTOVOLTAIC PANEL. 136kWp SYSTEM.

GENERAL NOTES	
1	THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ECS ELECTRICAL ENGINEERING SPECIFICATIONS.
2	THIS DRAWING IS INDICATIVE AND IS INTENDED TO HIGHLIGHT THE PROPOSED LOCATION FOR ELECTRICAL SERVICES. THE CONTRACTOR SHALL NOTE THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION PURPOSES. THE CONTRACTOR SHALL INCLUDE TO PRODUCE THEIR OWN WORKING DRAWINGS, TAKE DETAILED SITE MEASUREMENTS, INDICATE THE PROVISION OF BUILDERS WORKS AND COORDINATE THE INSTALLATION OF ALL SERVICES.
3	THE CONTRACTOR SHALL NOTE THIS DRAWING HAS BEEN PRODUCED USING LIMITED SITE SURVEY INFORMATION. THE CONTRACTOR SHALL INCLUDE TO CARRY OUT AN INTRUSIVE SURVEY AND TO PRODUCE DRAWINGS THAT REFLECT THE INSTALLATION.
4	ALL EQUIPMENT SHALL BE INSTALLED & LOCATED TO MAINTAIN SPATIAL REQUIREMENTS TO FACILITATE ACCESS & MAINTENANCE IN LINE WITH MANUFACTURERS RECOMMENDATIONS AND GOOD PRACTICE GUIDES.
5	ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS GUIDELINES.
6	DO NOT SCALE FROM THIS DRAWING.
7	ALL DETAILS ARE APPLICABLE TO EVERY DRAWING UNLESS INDICATED OTHERWISE.
8	THE CONTRACTOR SHALL INCLUDE TO IDENTIFY THE COMPLETE EXISTING ELECTRICAL INSTALLATION. EXTEND AND ADAPT TO FACILITATE THE PROPOSED WORKS



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INFORMATION			
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