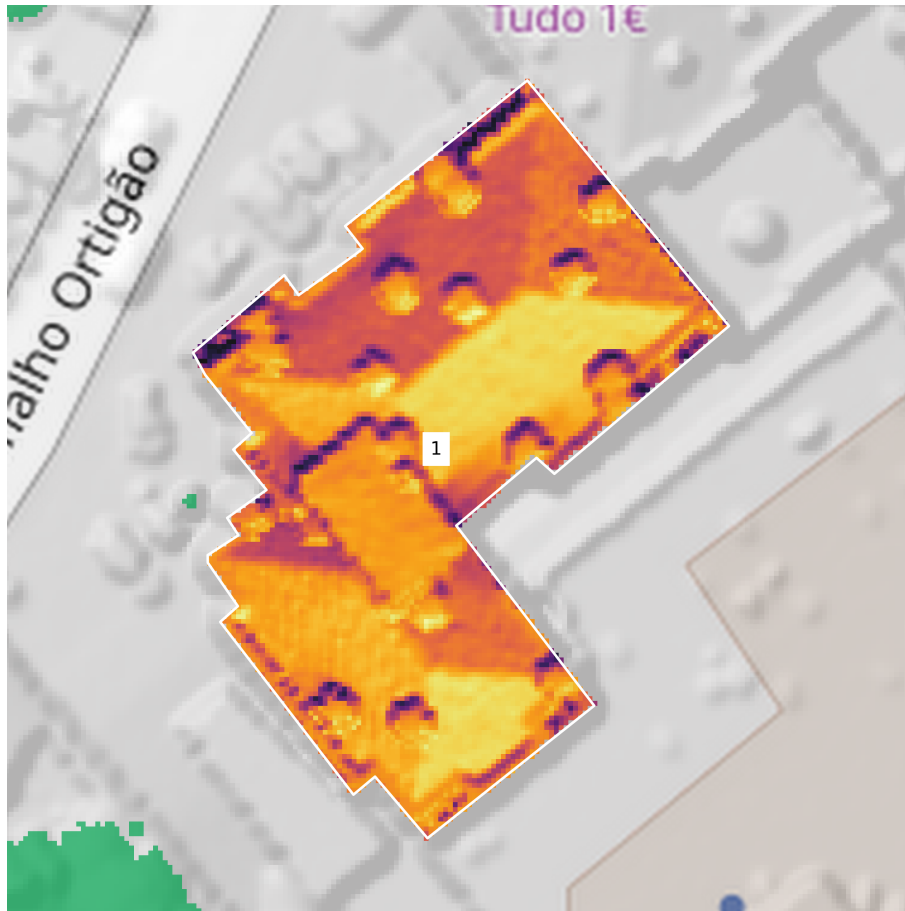


Analysis of Solar Energy Potential of Real Estate Properties

This report presents a data-driven assessment of the solar energy generation potential of selected buildings.



This document contains the results of a preliminary analytical assessment of rooftop solar energy potential based on high-resolution LiDAR data and meteorological datasets.

LiDAR (Light Detection and Ranging) is a remote sensing technology that uses laser scanning to create a highly detailed 3D model of the terrain, buildings, and surrounding objects. This allows accurate estimation of roof geometry, slope, orientation, and shading conditions.

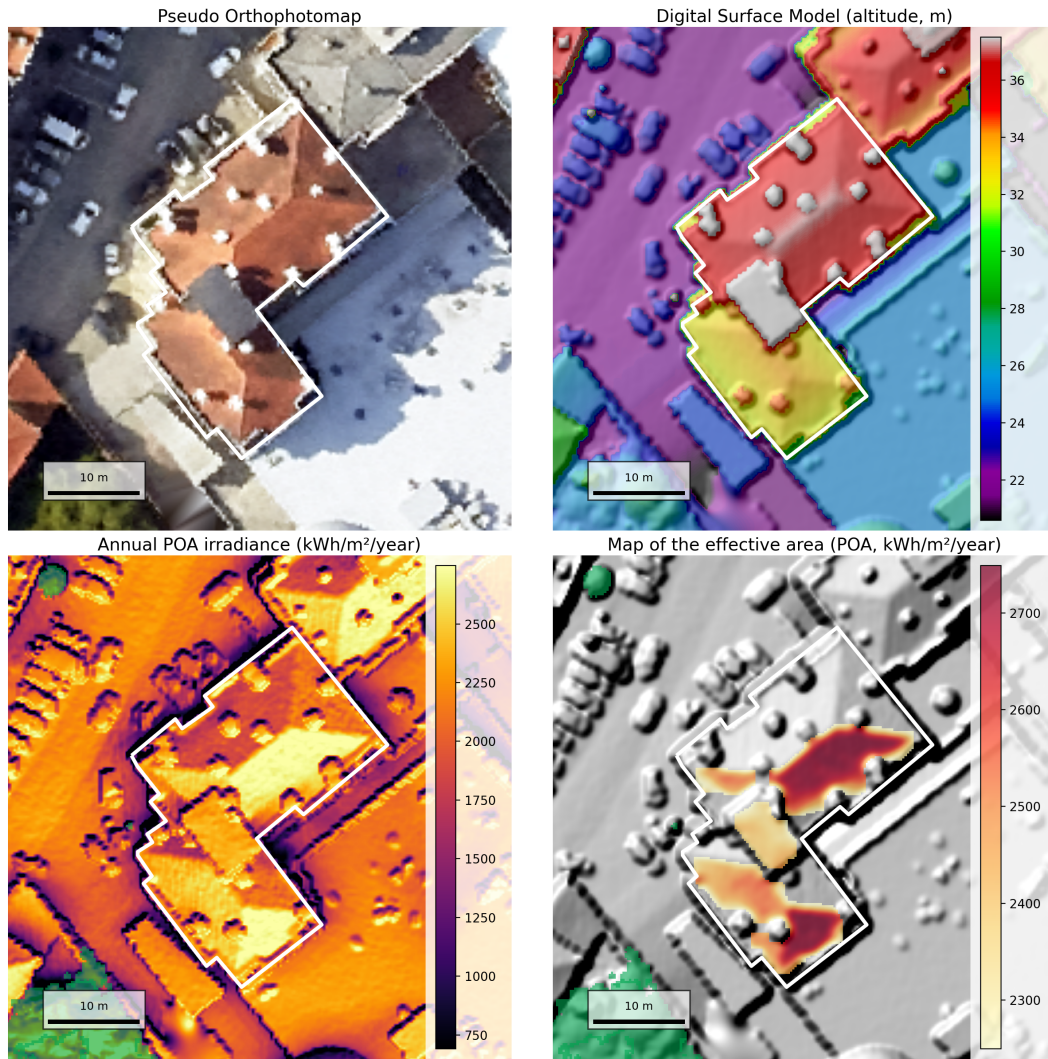
For each building, the available roof area, tilt angle, orientation, and shading from terrain, nearby buildings, and vegetation were analyzed. Annual and monthly energy generation forecasts were calculated using PVGIS meteorological data for 2024.

Each property is presented on a separate report page.



Rua Ramalho Ortigão 164, 4900-422 Viana do Castelo, Portugal

1

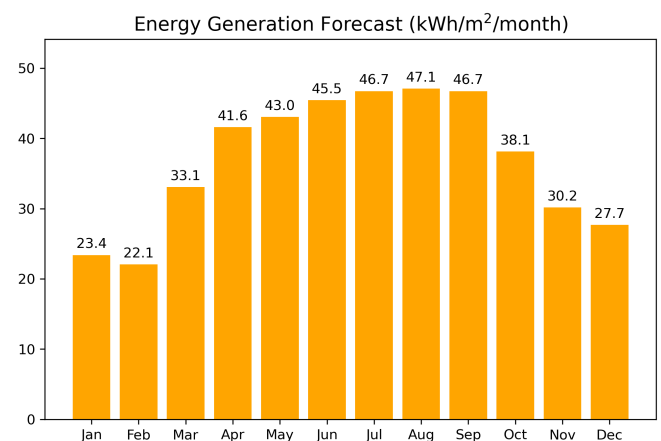


The result of determining the effective area may not be accurate if PV panels are already installed on the roof.

[Link to Google Maps](#)

Latitude: 41.7032, Longitude: -8.82321

Total Roof Area (m ²)	558.07
Effective Area (m ²)	225.75
Average POA Over Effective Area (kWh/m ² /year)	2510
Total POA Over Effective Area (kWh/year)	566590
Average Energy Generation Forecast (kWh/m ² /year)	442
Total Energy Generation Forecast (kWh/year)	99720
Average Slope Angle of the Effective Area (degrees)	16



The Energy Generation Forecast is calculated as POA irradiation multiplied by the PV module efficiency (22%) and the system Performance Ratio (0.80), for the respective time period.

PVGIS meteorological data for 2024 were used to calculate the POA and forecast energy generation.



⚠ IMPORTANT LEGAL NOTICE

This document constitutes a preliminary analytical study based on remote sensing data and modeling techniques.

It is provided for informational and illustrative purposes only and does not constitute:

- an electrical engineering design,
- a photovoltaic system project,
- a technical installation plan,
- a structural assessment,
- a grid-connection study,
- or any document required under applicable national or European legislation for the authorization, permitting, or installation of a photovoltaic system.

No physical site inspection, structural verification, electrical compliance analysis, or regulatory approval assessment has been performed.

The results are estimates derived from geospatial datasets and modeling assumptions. Actual technical feasibility, system performance, investment costs, regulatory compliance, and return on investment may differ and must be verified by licensed engineers and qualified installers prior to implementation.

Sun Potential 3D assumes no liability for decisions made based solely on this analytical report without independent professional verification.

