



SOLAR PV INSTALLATION FOR A MANUFACTURING COMPANY

Sector: **Manufacturing**

Technology: **Solar PV**

System Size: **375 kWp**

PERFORMANCE & FINANCIAL:

- **Estimated Annual Generation:**
277,000 kWh
- **Payback Period:** 5.8 years
- **Return on Investment (IRR):** 20.4%
- **20-Year Return:** £1.52m

ENVIRONMENTAL IMPACT:

- **Annual Carbon Savings:**
57,317kg CO₂
- **Equivalent to:**
 - ✓ 89 tonnes of industrial coal
 - ✓ 9965 trees planted

Conversion factors based on UK Government greenhouse gas data, June 2023: 1 kWh = 0.20707 kg CO₂; Industrial Coal = 0.32262 kWh/tonne; Tree Planting = 0.036 kW/tree

PROJECT OVERVIEW

A manufacturing company sought to reduce energy costs and their carbon footprint through a custom solar PV system. A detailed analysis of energy consumption and a structural survey of the site were conducted to ensure the system met operational and environmental goals.

KEY MEASURES

System Design

Comprehensive electrical and mechanical design of the solar PV system.

System Installation

Full supply, installation, and commissioning, completed within four weeks.

Grid Integration

National Grid connection was arranged to facilitate seamless energy export and use.

Real-Time Monitoring

Ensuring system performance aligns with projected expectations.

SOLUTION

The installation was documented using drone footage, showcasing the system's seamless integration with the site. This project enables the company to cut energy costs, contribute to sustainability targets, and lower their carbon emissions significantly over the system's lifetime.