

THREE COUNTIES FARM

MARLBOROUGH, WILTSHIRE








INTRODUCTION

Three Counties Farm, a large agricultural business, partnered with Titan Eco to implement a site-wide solar generation system designed to lower operational costs, generate income through Power Purchase Agreements (PPAs) and strengthen long-term sustainability.

Working closely with the client, Titan Eco designed and installed four solar PV systems across different buildings on the site. Each system was tailored to maximise energy generation while ensuring reliable performance and seamless integration with the farm's existing infrastructure.



SYSTEM COMPONENTS

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Solar panels: 760 × Trina TSM-420DE09R panels (319.2 kWp) – high-efficiency panels providing a strong power-to-size ratio and reliable generation across varied roof types.
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Inverters: 5 × Solis S5-GC series inverters – for efficient power conversion and performance.
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Mounting system: K2 cross-railed mounting – a robust and secure platform engineered for longevity, with optimal load distribution across agricultural roof structures.
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Monitoring: Solar-Log monitoring – providing comprehensive data tracking of both energy generation and site consumption.
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Pigeon-proofing: SolaMesh installed to prevent nesting and debris build-up, maintaining system efficiency.



IMPLEMENTATION

- Assessment:** A detailed assessment was carried out to evaluate roof condition, structure and shading, load capacity and shading across each building.
- System design:** The project required a considered approach, accommodating four buildings with differing roof aspects to ensure maximum energy yield and overall system efficiency.
- Mounting system:** K2 cross-railed mounting was installed across all rooves, providing a secure and durable foundation.
- Panel installation & integration:** The panels and inverters were installed across the 4 sites to maximise power generation.
- Pigeon-proofing:** SolaMesh was added to complete the arrays, providing lasting protection across each installation.



OUTCOMES

The installation has enabled Three Counties Farm to reduce its electricity costs significantly by generating clean, renewable power directly on-site.

Excess energy is exported to the grid through a Power Purchase Agreement (PPA), providing a consistent revenue stream that strengthens the farm's long-term financial resilience.

Beyond the cost and income benefits, the project has markedly reduced the farm's carbon footprint – reinforcing its commitment to sustainable and responsible farming.

With performance data visible through Solar-Log monitoring, the system delivers transparency, efficiency and dependable returns year-round.

This project demonstrates Titan Eco's ability to design and deliver tailored solar solutions that align practical commercial objectives with long-term environmental value.



ANNUAL OUTPUT

 **296,218**

kWh CLEAN ENERGY

ANNUAL REDUCTION

 **148**

TONNES OF CO₂

ANNUAL SAVINGS

 **£55,000**

ELECTRICITY & EXPORT