



HEATON STANNINGTON AFC CASE STUDY

PROJECT OVERVIEW

Heaton Stannington AFC is a community football club in Newcastle upon Tyne. To reduce the running costs of its ground and facilities, the club partnered with DES Renewable Energy to install a rooftop solar PV system with battery storage that generates clean electricity onsite, lowers energy bills, and supports its long-term sustainability goals.

Heaton Stannington AFC commissioned DES Renewable Energy to install a 19.89 kWp solar PV system across its roof. The installation comprised 34 x 585W Astronergy panels connected to a Solax 20kW string inverter and 30kW hybrid inverter, paired with battery storage. The project aimed to reduce electricity costs, lower carbon emissions, and enhance long-term financial sustainability.

PROJECT DETAILS

Company Name: Heaton Stannington AFC
Location: Newton Road, Newcastle upon Tyne,
NE7 7HP

Solar System Capacity: 19.89 kWp
Estimated Annual Generation: 16,485 kWh
Installation Type: Trapezoidal roof solar panels
with battery storage

Project Timeline: Delivered March 2025, from
survey to commissioning





OBJECTIVES

Reduce electricity costs

Reduce electricity costs and
dependence on grid energy

Improve environmental
sustainability by reducing carbon
footprint

Achieve long-term operational
savings and financial returns

Demonstrate responsible energy
practices to members, visitors and
the local community



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BESPOKE ASSESSMENT AND DESIGN

INITIAL ASSESSMENT

DES Renewable Energy conducted a comprehensive assessment of roof space, structural considerations, sun exposure, and interlocking constraints. This ensured optimal placement and system sizing to maximise energy production and long-term reliability.

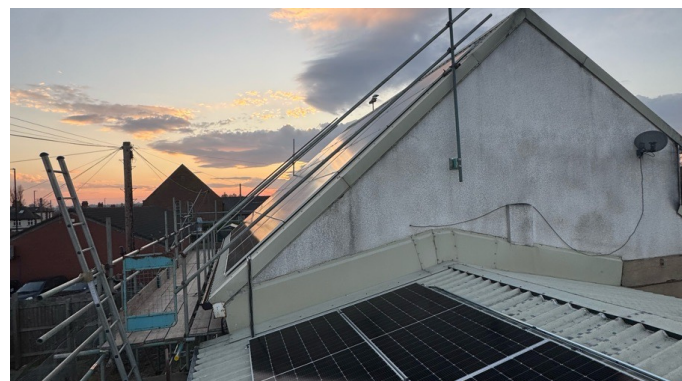
PERMITTING AND APPROVALS

DES Renewable Energy ensured compliance with building regulations, electrical standards, and industry best practices. All necessary permits and approvals were obtained to guarantee a fully compliant and safe installation.



SYSTEM DESIGN

The system was designed with 34 x 585W Astronergy panels across the trapezoidal roof. Power conversion is handled by a Solax 20kW string inverter and 30kW hybrid inverter, paired with battery storage to maximise self-consumption. The system integrates with the site's existing electrical infrastructure for efficient energy management.



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INSTALLATION AND COMPLETION

INSTALLATION AND COMMISSIONING

The installation was carried out with minimal disruption to the day-to-day site operations. Panels were securely mounted, connected to the inverter, and integrated with the existing electrical system. Comprehensive testing and commissioning verified the system's performance, functionality, and safety.

WHERE DES RENEWABLE ENERGY ADDS VALUE:

From initial assessment to completed commissioning, DES Renewable Energy provides a turnkey solution that ensures optimal energy generation, regulatory compliance, and sustainable operational savings.



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AT A GLANCE

- 34 x 585W Astronergy panels on a trapezoidal roof
- 19.89 kWp total system capacity
- Solax 20kW string inverter and 30kW hybrid inverter with battery storage
- 16,485 kWh of clean energy generated per year
- Reduced electricity costs and carbon footprint



BENEFITS

Energy Cost Reduction: Lower electricity bills and reduced reliance on grid energy
Environmental Impact: Around 16,485 kWh of clean energy each year, saving an estimated 3.4 tonnes of CO₂ annually and supporting sustainability goals
Financial Returns: Savings on energy costs contribute to long-term financial sustainability
Public Image: Demonstrates responsible energy practices to members, visitors and the local community



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OUR ACCREDITATIONS

We are MCS Certified which guarantees that our installations have been designed, installed, and commissioned to the highest standard using only MCS certified products.

We are also NAPIT Certified which confirms that we are certified to install and self-certify all of our electrical installations. We also comply with the Renewable Energy Consumer Code (RECC).



Electrical Safety
Register