



ROSE GARDEN CARE HOME CASE STUDY

PROJECT OVERVIEW

Rose Garden Care Home is a care home in Patchway, Bristol, part of Allegra Care. To reduce the running costs of the home and support its environmental goals, it partnered with DES Renewable Energy to install a rooftop solar PV system that generates clean electricity onsite, lowers energy bills, and supports its long-term sustainability goals.

Rose Garden Care Home commissioned DES Renewable Energy to install an 80.77 kWp solar PV system across its roof. The installation comprised 197 x 410W Hyundai panels connected to SolaX X3-PRO-20K-G2 and X3-MEGA-50K-G2 inverters. The project aimed to reduce electricity costs, lower carbon emissions, and enhance long-term financial sustainability.

PROJECT DETAILS

Company Name: Rose Garden Care Home
(Allegra Care)

Location: Chessel Drive, Patchway, Bristol, BS34
5BH

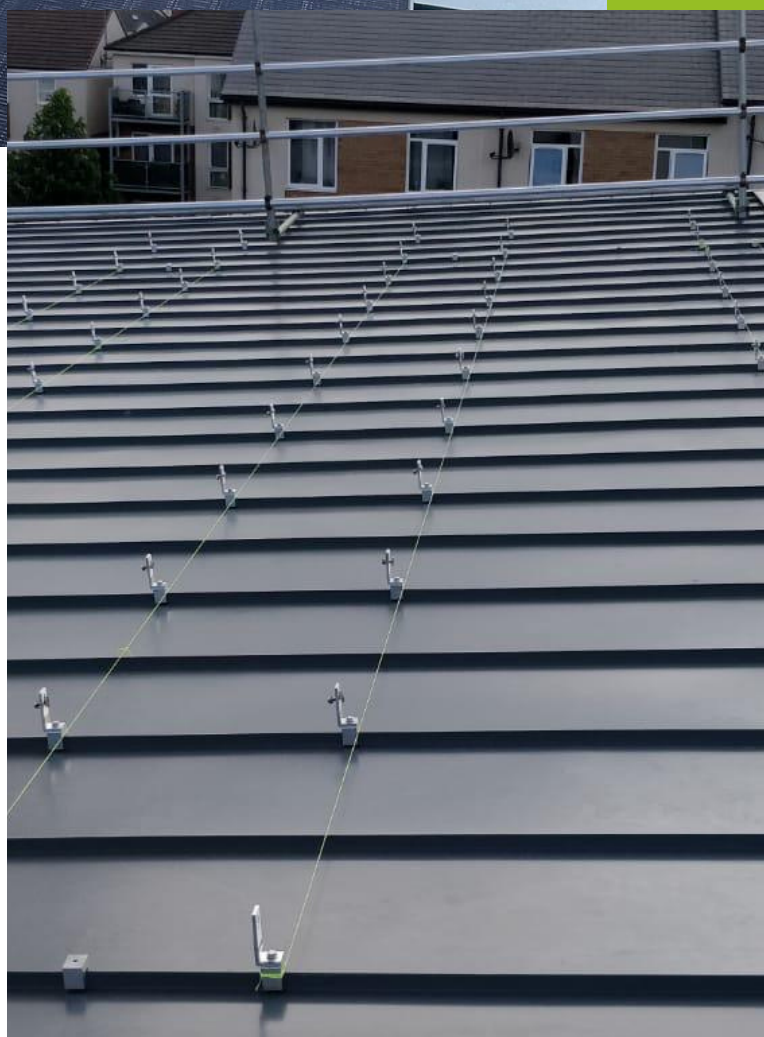
Solar System Capacity: 80.77 kWp

Estimated Annual Generation: 69,853 kWh

Installation Type: Pitched roof solar panels

Project Timeline: Delivered 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 residents, staff and
visitors



+44 1202 985888



www.desrenewables.com



info@desrenewables.com

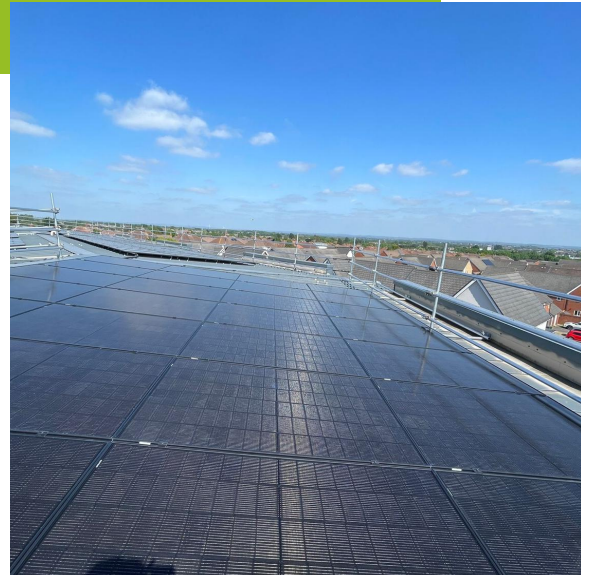
BESPOKE ASSESSMENT AND DESIGN

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 197 x 410W Hyundai panels across the roof. Power conversion is handled by SolaX X3-PRO-20K-G2 and X3-MEGA-50K-G2 inverters. The system integrates with the home'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

- 197 x 410W Hyundai panels on the roof
- 80.77 kWp total system capacity
- SolaX X3-PRO-20K-G2 and X3-MEGA-50K-G2 inverters
- 69,853 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 69,853 kWh of clean energy each year, saving an estimated 14.5 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 residents, staff and visitors



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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).

