



NANAKSAR GURDWARA CASE STUDY

PROJECT OVERVIEW

Nanaksar Gurdwara is a Sikh temple (Gurdwara) in Southall, Greater London. To reduce its running costs and strengthen its environmental credentials, it partnered with DES Renewable Energy to install a solar PV system with battery storage that generates clean electricity onsite, lowers energy bills, and supports its long-term sustainability goals.

Nanaksar Gurdwara commissioned DES Renewable Energy to install a 25 kWp solar PV system. The installation comprised 50 x 500W DMEGC panels connected to a 20kW three-phase Sigenergy inverter, paired with Sigenergy battery storage (approx. 22 kWh). The project aimed to reduce electricity costs, lower carbon emissions, and enhance long-term financial sustainability.

PROJECT DETAILS

Company Name: Nanaksar Gurdwara
Location: Nanaksar Gurdwara, 60 Kingsbridge
Crescent, Southall, UB1 2DL
Solar System Capacity: 25 kWp
Estimated Annual Generation: 23,750 kWh
Installation Type: Rooftop solar panels with
battery storage
Project Timeline: Designed and specified by DES
Renewable Energy





OBJECTIVES

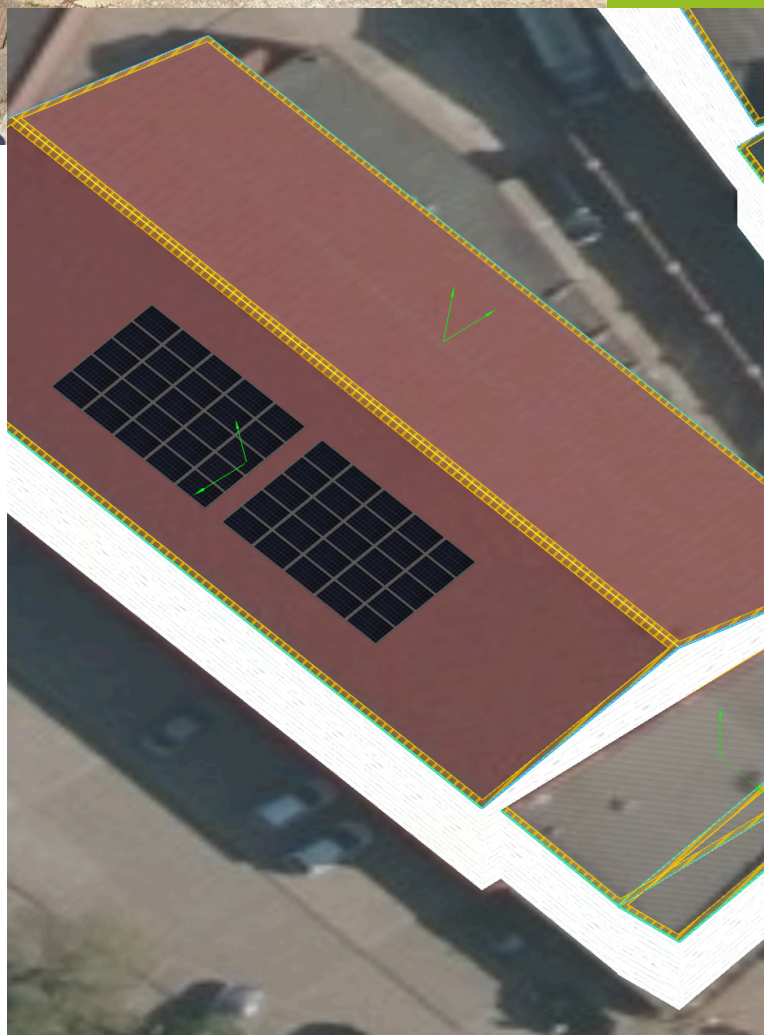
Reduce electricity costs

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 the congregation,
staff and the local community



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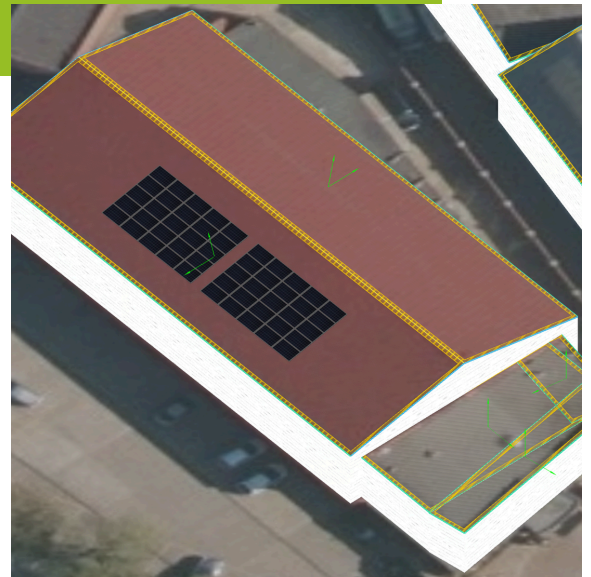
BESPOKE ASSESSMENT AND DESIGN

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 50 x 500W DMEGC panels. Power conversion is handled by a 20kW three-phase Sigenergy inverter, paired with Sigenergy battery storage (approx. 22 kWh) to maximise self-consumption. The system integrates with the site's existing electrical infrastructure for efficient energy management.



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

- 50 x 500W DMEGC panels
- 25 kWp total system capacity
- a 20kW three-phase Sigenergy inverter with Sigenergy battery storage (approx. 22 kWh)
- 23,750 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 23,750 kWh of clean energy each year, saving an estimated 4.9 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 the congregation, staff and the local community



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).

