

Rooftop Solar PV Array for R&D Building

ABLAZE GREEN ENERGY SOLUTIONS LTD

Integrating Rooftop Solar in a Pharmaceutical Building

This pharmaceutical company's building was designed to cut costs and emissions by uniting a workforce under one roof.

To continually improve the environmental footprint, Ablaze were appointed to design and install the solar PV system to the roof space totaling 485 square metres. This sustainability initiative added to the structures already 'Excellent' rating on the BREEAM Environmental Performance Index.

Primary Keys to Success

The primary motivation for including a roof-top solar array in the design was its contribution to the energy savings, as a complimentary part to the buildings energy management system (BEMS). Ablaze GES installed 294 high efficiency solar panels which provide 100 kilowatt (kW) of power. The south facing orientation of the panels ensured a generous yield, translating as a 100% reduction in the buildings electrical consumption.



Photo credit: Creative Mind

SOLAR PROJECT SPOTLIGHT

Date Installed	2020
Location	South East
Installation Type	Roof Mounted
Size	100 kW
Annual Production	87,465 kWh
Electricity Offset	100% of total electricity consumption
Expected CO2 Savings	46.2 tonnes
Expected Payback	5½ years based on electricity costs and available subsidies.



Key Takeaways

Beyond utilising renewable energy, the building is built to be carbon-neutral and ozone free. The structure comprises of timber-framed curtain walling, ground-water cooling from boreholes and an ammonia refrigeration plant.