

KING'S COLLEGE - ST LUCIA, QLD

Designed and installed by Solar Hybrids

INDUSTRY: EDUCATION

REQUIREMENTS: Reduce power costs and limit environmental impact

SYSTEM SIZE: 99.745kW

PRODUCT: LG MONOX PLUS 295W & 300W

ESTIMATED ANNUAL OUTPUT: 160,000kWh approx¹

INSTALLED: January 2018

> Build a system with superior safety capability, highest quality and peace of mind warranty.



Generating approx 15% of total energy required & approximately first year savings of \$20,000 per annum ¹



Approx 155 tonnes of CO_2 emission avoided per annum²



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BACKGROUND

King's College is a leading academic institution providing accommodation for men studying at the University of Queensland, Queensland University of Technology, and other tertiary institutions in Brisbane.

King's College has some of the best facilities of any Residential College in Australia with state of the art facilities, including a swimming pool and 24 hour access to technology providing students with a unique Centre for Learning and Leadership.

CHALLENGE

Concerned about the rising power costs to run the state of the art facility, King's College engaged the Solar Hybrids team to design, install and manage a suitable solar system with superior safety capability, highest quality and peace of mind warranty.

Many different roof facets needed to be utilised. As a residential college, the building is a Class 3 building , therefore the PV array voltage needed to be kept under 600V DC for compliance purposes.

In addition, all works had to be completed during the Christmas holidays to avoid disruptions to students and to the College operations.



SOLUTION

The Solar Hybrids team recommended a 99.745 kW system using a total of 336 LG panels consisting of 211 x 295W plus 125 x 300W MonoX Plus panels, SolarEdge 8kW 3-Phase inverters, and SolarEdge optimisers.

The smaller 8kW inverters were used to enable an operating voltage below 600V DC to comply with Class 3 mandatory building requirements.

WHY WERE LG PANELS CHOSEN

LG Solar panels were recommended by Solar Hybrids and chosen by the customer due to their outstanding attributes :

- Yearly performance degradation of the LG modules is one of the lowest in the market, ensuring a high yield over the warranted life of the panels.
- Performance and product warranty of the LG modules are industry leading.
- The LG warranty also includes labour for replacement work, not just parts for additional peace of mind.

¹ The estimated average annual electricity usage savings were provided by the installer.

² The estimate for CO2 emissions avoided assumes that the entire electricity output of the system is consumed and the emission factor used is the weighted average for all Australian States based on the calculator available at carbonneutral.com.au. For more information, please see: https://carbonneutral.com.au/carbon-calculator/.