Nudgee Trust
EST. 1869

Recipient
Holy Cross Laundry

Grant Amount
$536,804

Funding Period
2024

Grant Overview
The original grant application sought support towards the installation costs for a 438kW solar system comprising of 922 panels on the roof of the Laundry at Banyo..

Case Study: holy Cross Laundry Solar Panels

Context and Need

The aim was to see a reduction in carbon footprint and reduce are grid dependency by 36% which is an offset of 488 tonnes of CO2 per annum. The financial benefit for HCS was estimated to be an initial $60,000 reduction in energy costs in the first year and based on estimated energy costs at the time this would see at least a saving of $900,000 over 10 years. We were also expecting an improvement in heat levels within the Laundry especially in the summer months with the solar panels providing an insulting layer on the roof.

Activities and Implementation

Procure an installation partner and execute the project.

Outcomes and Impact

The average daily electricity consumption during the six months period prior to solar power becoming available for laundry use was 4,300 kWh with average monthly Greenhouse Gas Emissions (CO2e) of 87 tonnes.

After the installation of the solar power system, the average daily electricity consumption during the 12-month period July 2024 to June 2025 was 3,000kWh with average monthly Greenhouse Gas Emissions (CO2e) of 60 tonnes. This represents a reduction in the usage of grid-based power of 31% and associated Greenhouse Gas Emissions of 30%.

Whilst HCL did not have quantifiable data to demonstrate the improvement in heat levels within the laundry, feedback from the team is that there was a distinct improvement over the very hot summer months compared to prior years.

Learnings

Currently all solar generated electricity is fed into the on-site electricity demand via 1 of the 2 meters that feed grid-based electricity to the site. Also, on weekends when production is significantly reduced there is wastage of solar generated electricity to the grid. It is estimated that this wastage is between 8% and 10% of solar generation. HCL are reviewing the option of spreading the solar feed into both meters and assessing the cost/benefit on battery storage to eliminate the waste.