

# Case Study

## Methodist Ladies' College

### Solar Energy

#### Challenge

Methodist Ladies' College (MLC) was founded in 1882 to provide an outstanding education for young women.

The College places a significant focus on sustainable living, exemplified through their eight-week residential outdoor education experience at MLC Marshmead. MLC's commitment to sustainability propelled them to invest in solar PV panels to reduce carbon emissions while lowering electricity costs.

There were several design aspects to consider in planning and installing the system. In an effort to corroborate efficiency and design, MLC sought to keep the panels out of sight from the main road and preserve their classic façade. The College was also eager to design a system that would be easy to maintain in the future. Lastly, the roof had some shading issues that would affect the output efficiency of the panels.

#### Solution

The final design considered the ridge height of the roof and obscured the sight of the panels from the main road. It also featured inter-row spacing between each panel to allow for convenient cleaning and maintenance. Tigo optimisers were installed to enhance energy generation and compensate for the shaded regions and inter-spaced design.

JA Solar panels, Fronius Symo inverters and Tigo optimisers were installed, with the system now delivering \$15,116 and 131,416kWh in annual savings, as well as reduced carbon emissions equivalent to planting over 2,700 seedlings!

Mitigated carbon emissions of

# 168,212 kg CO<sub>2</sub>

annually





**131,416 kWh**  
reduced per year

