



# CASE STUDY

## St Joseph's Primary School



ANNUAL SAVINGS  
**\$12,396**



ENERGY SUPPLIED BY SOLAR  
**33%**



GRID-ENERGY USE  
**28% REDUCTION**



PAY BACK PERIOD  
**2.9 YEARS**



**LEDs INSTALLED**



GRID-CONNECTED SYSTEM  
**35.2KW**



### SUMMARY

St Joseph's Primary School in Hawthorn prides itself on "a strong sense of community and commits to a personalised approach to learning and teaching, aimed at students reaching their full potential."

St Joseph's is also committed to reducing its grid-sourced energy consumption and have embarked on a number of energy efficiency upgrades through-out the school. They selected Energy Makeovers to install a **35 kW solar energy system comprised of 128 Trina panels**, spread across two buildings, and **2x15 kW Austrian-made Fronius inverters**. The system is fully monitored and the school is able to also track and respond to system faults thanks to the real-time monitoring features of the Fronius inverters.

### CHALLENGE AND SOLUTION

Energy Makeovers organised with St Joseph's to schedule the upgrade during the school holiday period to reduce disruptions to the teaching programme.

In order to utilise as much of the existing roof space as possible we designed a system that would operate across two buildings with two sets of panels and two inverters. We also recommended installing LED lighting first in order to minimise the size of the solar energy system the school would need.

As you'd expect with a school, peak energy consumption occurs during the middle of the day when the sun is at its strongest and the system is operating at maximum efficiency. The school also has low energy demands during holiday periods so we considered these needs when sizing the solar system to ensure the system wasn't larger than necessary. This careful approach to design ensured that St Joseph's achieved the highest possible **returns on their investment with the shortest possible pay-back period.**



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