



St Anthony's Catholic College, Townsville

How a growing school cut their energy consumption by 34%*

In 2009, St Anthony's, a thriving school of 1,200 students, received federal funding to enclose and air condition a multi-purpose covered area.

Using traditional technologies, the project was designed and tendered with the air conditioning component coming in over budget. The college needed to find a smarter way to proceed.

Energy efficiency consultants were engaged and an Energy Management Plan developed

which resulted in reduced construction costs and annual operating and maintenance savings of almost \$67,000.

Through innovative thinking and smart engineering, St Anthony's College is now a showcase facility for sustainable education and a more comfortable environment for attendees, with a master plan for future growth requiring minimal additional electrical infrastructure.

Savings Snapshot

Savings Snapshot—How being smarter reduced short term and long term costs



Lights

Installed energy efficient LED lighting and motion sensors



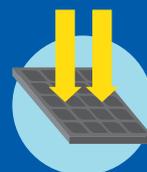
Air conditioning

Installed a new modernized system with new controls



Timers

Installed on selected appliances



Solar PV

Installed on 10 classrooms



Behaviours

Appliances off when not in use and encouraged classroom energy monitoring

“By challenging ourselves with the question: ‘Is there a better way to do this?’ we have achieved a solution way above our expectations.”

Paul Ould, Principal.

St Anthony's Catholic College cut their consumption by

34%*

*energy savings shown are from an independent auditor's measurement and verification, report conducted in 2010.

Money Saving Choices



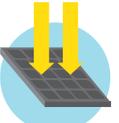
Time saving timers

By installing timers to work with the college timetable on drinking fountains, hot water systems and ZIP hot water boilers, they eliminated the need for continual 24/7 operation.



Efficient lighting

High-efficiency LED globes in classrooms and main buildings replaced 50W dichroic downlights, and redundant fittings were removed. Motion sensors were installed in amenities and transient areas. It's estimated this translated to demand savings of 17kW and annual operating costs being reduced by 4%.



Sunny savings

Installing 1.5kW solar PV systems on ten classrooms not only saved electricity but became a great educational tool—encouraging awareness and changes in the way staff and students use electricity.



Switched on students

Ensuring that students turn off computers and printers at the end of the day, and setting up classroom energy monitoring, was another great way of saving energy and educating students on energy efficiency practices.



Clever cooling

The chilled water plant was expanded to form a district cooling system, with a building management control system that provides priority cooling and advises when a room should be used in natural ventilation mode. The plant is used in conjunction with ceiling fans and is estimated to achieve demand savings of 270kW and operating cost savings of 22%. With a payback period of just over 4 years, this will free up funds for reinvestment into future energy efficiency initiatives.

Central chiller benefits

- Longer air conditioning plant life span (10–15 years)
- Reduced maintenance costs as items needing major maintenance are all in one location
- Saves space and reduces noise as the plan isn't within buildings
- Improved reliability of supply

Your turn

Go to “Save on your bill” at ergon.com.au/your-business to help you choose an energy efficiency consultant and take the first step towards reducing your energy costs.

