



Kirwan Community Health Centre, Townsville.

How cutting electricity demand by 19%* made this service the talk of the town.

Kirwan Community Health Centre provides aged care, high care, mental health support and long-term care for north Queensland residents. A small clinic and treatment centre also operates from the centre, along with administration services.

All facilities within the Townsville Health Service District are required to comply with the Queensland Government’s Strategic Energy Efficiency Policy.

This targets a reduction of energy consumption in all government buildings of 20% by 2015. By reviewing fittings, systems and the way staff approached electricity usage, Kirwan Community Health Centre has almost met the 2015 target. The working environment is also more pleasant—some staff even said the new lighting system made rooms look freshly painted!

Savings Snapshot

The benefits of installing a Central Energy Plant



Efficiency

Refrigerant Management System—to increase the efficiency of air conditioning unit compressor operation.



Optimisation

Energy Management System—to optimise air conditioning unit compressor operation.



Power factor correction

Power factor correction—adjusted from 0.08 to 0.98



Switches

After-hours switches—installed to reduce energy wastage.

“The energy management initiatives installed have improved the operational environment of this facility for the benefit of staff, patients and visitors whilst also improving the building’s operational efficiency in an environmentally sensible manner.”

Michael Ward, Engineer; Building, Engineering and Maintenance Services, Townsville Hospital.

Electricity demand down by

19%*

*energy savings shown are from an independent auditor’s measurement and verification, report conducted in 2011.

Money Saving Choices



A health centre that needed a thorough check-up

Kirwan Community Health Centre comprises 7,308 square metres of floor space. Air conditioning accounted for between 50% and 60% of total energy consumption. Two air-cooled chillers provided chilled water to a distributed air-handling system throughout the facility. Each chiller had two condensers and two compressors and operated on either a full or partial load between 5.30pm and 7.00pm weekdays and sometimes on Saturdays.

The centre's 1,435 light fittings were a mixture of T8 tri-phosphor, compact florescent and halide street lamps. Some of the T8 lamps were recessed and fitted side by side with no air gap, increasing heat and reducing the life of the tubes.



Innovative solutions that created a healthier facility

Air conditioning was the primary focus of the Energy Conservation Measures. So, a Refrigeration Management System and an Energy Management System to increase and optimize cooling systems was recommended to Queensland Health engineers.

Replacing energy-hungry lighting systems with NATA accredited LED lighting guaranteed a 10 year life cycle, inexpensive retro-fit, reduced heat output, the ability to be dimmed and fewer toxins to be disposed of.

After-hours switches were installed in some parts of the building to further conserve electricity.

The new high energy efficiency lighting also has nil maintenance in most cases allowing staff to focus on more meaningful services.



The switch to high efficiency LED lighting gave an immediate impression of freshly painted interiors throughout Kirwan Community Health Centre. Office spaces were immediately brighter.

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.

