



Performance Summary

Conservia has **exceeded** the performance guarantee with additional energy cost savings of ~\$22,000/yr over four years (2013 - 2017). This was achieved by continuous fine tuning of the buildings by Conservia in collaboration with the Townsville City Council (TCC) Property Management team.

Project Summary

The Administration Centre at 103 Walker St, Townsville is a four level building of reinforced concrete and masonry construction, with a metal deck roof and 50mm fibreglass insulation. The building has a floor area of 5,153m² that is fully air conditioned and heated.

The Civic Centre at 86 Thuringowa Drive, Townsville, comprises of three individual two storey buildings constructed in three stages between 1978 and 1995. The buildings are made of concrete construction with a major portion of the external facade showcasing full height glazing. The roof construction is a light coloured Colorbond metal roof sheeting with 50mm fibreglass insulation. The building has a floor area of 6,375m² that is fully air conditioned and heated.

The Opportunity

TCC set themselves a target to achieve higher greenhouse gas and energy savings. Conservia was selected for the Energy Performance Contract (EPC) to identify and evaluate energy efficiency opportunities, and implement energy efficiency improvements within the buildings.

TCC achieved the following results:

EPC Financials

- **Project Cost:** >\$900,000
- **Cost Savings:** ~\$190,000/yr
- **Electricity Savings:** 1,094,200 kWh/yr
- **GHG Savings:** 1,100 tonnes/yr
- **Simple Payback:** 5.2 years

EPC Outcome over 2013 - 2017

- **Avg Cost Savings:** \$212,000/yr
- **Avg Excess Cost Savings:** \$22,000/yr
- **Avg Excess Electricity Savings:** 91,500 kWh/yr
- **Avg Excess GHG Savings:** 85 tonnes/yr



Case Study: Energy Performance Contracting



Key Energy & Water Conservation Measures (ECM's & WCM's)

- Lighting upgrade – 1,533 new and retrofitted fittings (replacement of T8 fluorescent fitting magnetic ballast with T5 fluorescent fitting including electronic ballasts)
- Electrical metering and sub metering
- Optimising operation on air handling units including variable speed drives, CO₂ control and highest cooling demand
- Optimising chiller operation including fluid chilled water temperature set point reset
- Implementing space temperature reset in meeting rooms
- Time of day controls for hot water systems
- Optimising after hours push button timer and access control
- Holiday scheduling
- Optimising pond pumps
- Fine tuning throughout utilising an energy management system
- Solar window film

Energy Savings

Energy Savings = Average of 1,094,200 kWh/yr over 4 years

About Conservia

Conservia takes a holistic approach to improving building and facility energy efficiency. We work to understand our client's energy efficiency objectives, whether it's a simple optimisation of the existing systems or detailed upgrade path to achieve 5 star or higher NABERS energy rating.

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