

Townsville City Council QLD, Australia

Energy Performance Contract

The City of Townsville spearheads the way of local sustainability initiatives to help build a vibrant and liveable city for all.

EPC Outcomes

Average Cost Savings	\$212,000/yr
Excess Cost Savings	\$22,000
GHG Savings	1,100 tonnes/yr
Financing	From Savings Only

Overview

Townsville City Council (TCC) is located in Northern Queensland and operates out of two main buildings - the Administration Centre & the Civic Centre, both fully air conditioned and heated. The Administration Centre at 103 Walker St, Townsville is a four level building with a floor area of 5,153m². The Civic Centre at 86 Thuringowa Drive, Townsville (constructed between 1978 and 1995) comprises of three individual two storey buildings with a floor area of 6,375m².

The Goal

Townsville City Council (TCC) wanted to raise the profile of their city as a Sustainable City and had 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 Administration Centre & the Civic Centre.

Energy & Water Conservation Measures

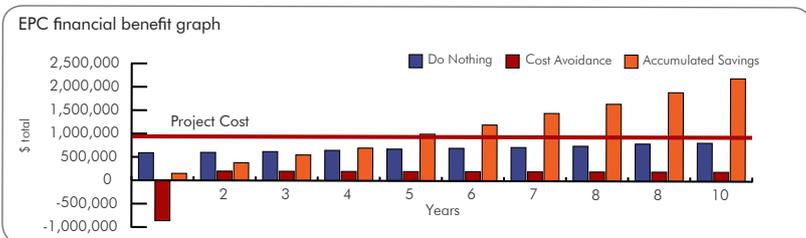
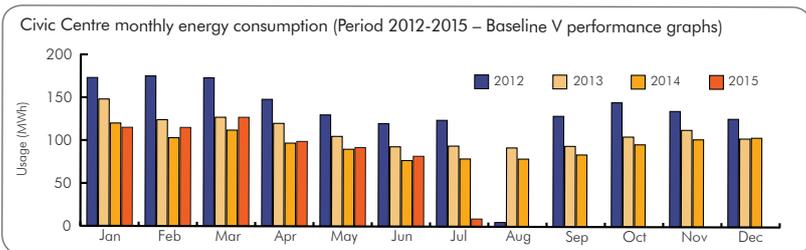
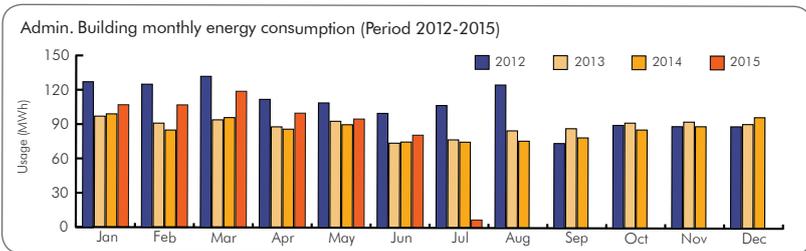
As part of the EPC, we undertook a Measurement & Verification (M&V) process to quantify energy savings for TCC. The M&V identified opportunities to generate energy savings through efficient energy management and operational improvements via building fine-tuning.

Key energy & water conservation measures:

- 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.



Reduction in city wide costs

Conservia worked in close collaboration with the TCC Property Management team to provide and deliver these key energy and water conservation measures and continuous fine-tuning of the buildings. The city have seen a substantial reduction in greenhouse gas emissions and are better equipped to manage energy consumption.

A sustainable city

Continual fine-tuning and efficiency enhancement ensures TCC is up to date on sustainability initiatives regarding energy, greenhouse gas, resource efficiency and natural resource management.

Conservia has exceeded the performance guarantee with additional energy cost savings of \$22,000/yr over four years (2013 - 2017).

Energy Savings (2013-2017)



Electricity Savings = 1,094,200 kWh/yr



Avg Excess Electricity Savings = 91,500 kWh/yr



Greenhouse Gas Savings = 1,100 tonnes/yr



Avg Excess Greenhouse Gas Savings = 85 tonnes/yr