BUSINESS **CASE STUDY**

August 2010

Alice Motor Inn

Company profile

The Alice Motor Inn is a 20 room accommodation facility nestled in the heart of Alice Springs' East Side. Built in the 1960s, with additions in the 1970s, it was purchased by its new owners in 2009. The facility consists of 3 accommodation buildings, one combined reception/ accommodation building, a laundry shed and an in-ground swimming pool. Concerned at the high energy use on site, the owners approached Alice Solar City with a view to implement a comprehensive energy makeover.

Energy survey results

Electricity consumption data received from Power and Water Corporation established a baseline energy consumption of around 97,000 kWh per annum. A walk through survey of the Motel by Alice Solar City identified that the electric water heating and reverse cycle air conditioning accounted for 69% of energy consumption, followed by room fridges and the pool pump. A number of opportunities to improve energy efficiency were identified.

ALICE SOLAR CITY RECOMMENDATIONS

An energy survey report was delivered to the customer, and an action plan and funding offer were then developed, with many of the recommendations put into action immediately.

Install photovoltaic power system

A 5kW solar power system was installed, which will reduce the electricity bill by $1,500 and reduce greenhouse gas emissions by 5.5 tonnes per annum.

Install solar hot water systems

Four new solar hot water systems were installed, with a combination of electric and gas boosting controlled by timers. Estimated savings were 25,000 kWh and $5,000 per annum.

Replace incandescent bulbs and lamps with compact fluorescents

Energy efficient lighting was installed in all rooms and on outside lighting.

Replace high-use T8 fluorescent tubes with T5 retrofit kits

Electricity losses from old magnetic ballasts were reduced with the simple step of replacing fluoro tubes with "T5 retro fit kits", which incorporate a smaller fluorescent tube and an electronic ballast in one unit.

Paint roof white

Particularly useful in Alice Springs' predominantly hot climate, a white roof reflects a high proportion of the sun's energy away from the building, keeping the interior cooler and reducing air conditioning costs.

Install bulk insulation in ceilings

Bulk insulation provides comfort and energy efficiency benefits all year round, keeping the heat out in summer and in during winter.

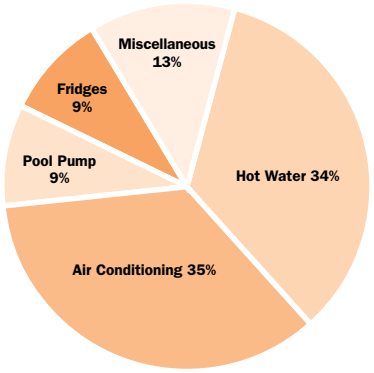
Tint sun-exposed windows

Where windows cannot readily be shaded with trees, verandahs or awnings, applying a window tint is a straight forward means of reducing the amount of the sun's energy entering a room.

Install airflow blocking "lids" on existing pelmets

Some of the rooms had pelmets fitted, but without a top plate. By fitting a "lid" over the pelmet, air movement across the window is slowed down significantly, reducing the amount of heat moving through the glass into or out of the room.

Electricity Consumption Breakdown



Results so far

The combination of actions so far has resulted in a halving of energy use per visitor over summer – a fantastic result! The estimated energy savings when all actions are completed will be approximately 60,000 kWh per year, equivalent to saving 41 tonnes of CO_2 emissions.

Alice Solar City incentive value

Alice Motor Inn received a $20,000 rebate for their PV system and a further $8,500 for other energy efficiency activities. Top up funding was received through Tourism NT and from the NT Government's ecoBiz NT program.

"Making our business more energy efficient was just common sense. With Alice Solar City's support we have been able to do so much more".

PJ Bedford, Manager

Alice Solar City 2/82 Todd Street, Alice Springs
Ph: 08 8950 4350 **Email:** commercial@alicesolarcity.com.au
www.alicesolarcity.com.au

Alice Solar City ENERGY CHAMPIONS