BUSINESS CASE STUDY

August 2012

First National Framptons



Company profile

First National Framptons offers real estate services including residential and commercial property sales and management. With 13 offices (including 27 workstations), a boardroom, kitchenette, toilets and storage rooms, the business operates from a single-storey building in the Alice Springs CBD heritage precinct.

The building has reasonably good passive solar design, with its long axis running east-west and eaves overhanging all walls. Windows are tinted and the walls and ceilings have bulk insulation.

Energy survey results

Alice Solar City conducted an energy survey in August 2008 and identified a number of energy and cost saving measures.

At the time, energy consumption was 78,000 kWh per annum, resulting in an estimated 54 tonnes of CO_2 emissions per annum. For a floor space of $350\mathrm{m}^2$, energy use is just over $200\mathrm{kWh}$ per square metre per annum, which represents a relatively inefficient building. A likely explanation for this was the air-conditioning working too hard to meet low temperature set-points. Air conditioning accounts for an estimated 60% of total consumption.

ALICE SOLAR CITY RECOMMENDATIONS

Install rooftop photovoltaic (PV) power system

A 3kW PV system was installed, producing over 4,866 kWh per annum and providing 6% of the current electricity consumption. The system will result in a reduction of ${\rm CO_2}$ emissions by 3.4 tonnes per annum and a saving of over \$1,000 off the annual electricity bill.

Set airconditioner to 24°C during summer

Employee comfort during summer can be achieved through the combination of air-conditioning with ceiling or desk fans. Framptons increased the thermostat temperature by one degree, saving 10% or around \$1,000 off their annual cooling bill.

Change air-conditioner timers

Framptons asked their air-conditioner contractor to alter the air-conditioner start and finish time by 30 minutes each. That's a 260 hour saving per year! This will save around 4,070kWh and \$850 per year.

Optimise fluorescent lighting

Older style magnetically ballasted T8 fluorescent tubes were retrofitted with the latest triphosphor T5 fluorescent lamps, saving approximately 35% off the annual running costs for this lighting type.

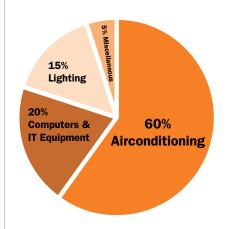
Replace halogen down-lights with low energy options

Framptons replaced their 50 watt halogen down-lights with compact fluorescent lamps saving over \$400 per annum. Replacement with energy efficient compact fluorescent (CFLs) down-light kits reduces energy consumption by 70% and has a payback period of less than three years.

Install sensor lights

To save on lighting costs in rooms with low occupancy, the audit identified the opportunity to install motion sensors in meeting rooms, kitchen and toilets, with the potential to save 1,100kWh or \$230 per year.

Electricity Consumption Breakdown



Estimated savings

The energy efficiency measures have resulted in a reduction of their consumption of over 30%. Combined with the solar power installation, Framptons are saving over \$7,800 per annum and reducing their annual carbon footprint by over 20 tonnes.

Alice Solar City incentive value

The total incentive from Alice Solar City was \$2,164 for energy efficiency measures and \$14,324 for the PV system.

"We see ourselves as responsible corporate citizens and are trying to play our part to make the town more sustainable. If everyone does their bit the town can continue to grow and prosper whilst reducing our impact on the planet."

David Forrest - Director

