

## BUSINESS CASE STUDY

December 2009

# Mt Nancy Motel



### Company profile

The Mt Nancy Motel was purchased by the new owners in early 2009. Director of the Mt Nancy Motel Robert Gwynne, who has also built 7 star properties in South Australia, says he was keen to show Territorian businesses what can be achieved through property redevelopment.

Alice Solar City was approached early in the redevelopment and refurbishment process, with a general goal of achieving a high level of environmental performance.

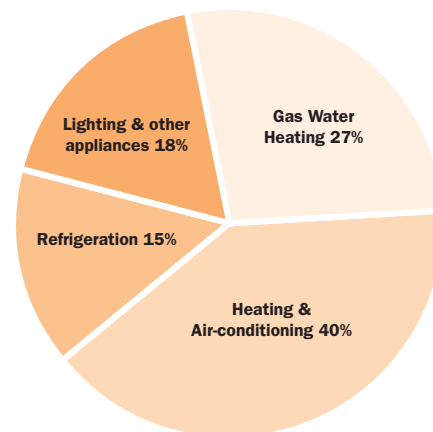
### Energy survey results

An inspection of the Motel by Alice Solar City identified a number of opportunities to improve energy efficiency. The motel includes 28 rooms across five buildings and a swimming pool. A baseline energy consumption of 139,000 kWh of electricity and 5,700 litres of LPG per annum was established. The gas is used predominantly for water heating. Of the electricity consumption, air-conditioning and heating was estimated to comprise 55%, refrigeration 20%, and lighting and other appliances make up the remainder.

*"We're over the moon with what we've achieved at Mt Nancy. Alice Solar City really got us on the right track, with great recommendations and fantastic funding assistance!"*

Rob Gwynne, Owner Mt Nancy.

### Mt Nancy energy consumption



### ALICE SOLAR CITY RECOMMENDATIONS

A number of recommendations were included in the Alice Solar City energy survey report, and action was taken on all of them. The recommendations and resultant actions were:

#### Install solar power system

A 12kW solar system was installed on a north east facing roof and is expected to produce 19,000 kWh per annum, and will reduce greenhouse gas emissions by 13 tonnes per annum.

#### Install solar hot water systems

A combination of gas-boosted split system solar hot water and commercial heat pump hot water systems were identified as the preferred approach to improving water heating energy efficiency. The systems will reduce gas consumption by 85%, saving approximately \$7,000 per annum. The heat pump systems will mean an increase in electricity consumption,

but a decrease in gas consumption, resulting in a net reduction in costs and greenhouse gas emissions compared to the previous system.

#### Install wall and ceiling insulation

New bulk insulation was retrofitted to walls and ceilings, providing improved comfort and an estimated 30% reduction in air conditioning costs.

#### Paint roof white

All buildings had their roofs painted white, reflecting the sun's heat to improve guest comfort and reduce air-conditioning costs.

#### Install pelmets and door seals

Pelmets were fitted over curtains, and seals fitted to doors, to reduce air-conditioning and heating costs.

#### Install smart meters and in-room displays

Alice Solar City supplied smart meters and will supply in-room displays to investigate how these items impact on the energy consumption patterns of motel guests.

#### Estimated savings

- 47,000 kWh per annum of electricity
- 5000L of LPG per annum
- \$16,000 per annum saved

#### Alice Solar City incentive value

- \$35,000 for energy efficiency measures
- \$45,000 for solar power system

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