

# Alice Springs Airport SOLAR POWER STATION



Alice Springs is one of the seven Solar Cities in the Australian Government's \$94 million Solar Cities Program.

The Solar Cities Program is creating a new energy future for Australia by trialling solar technologies with cost reflective pricing, energy efficiency measures and metering technologies.

The Alice Springs Airport's 235kW solar project is the second of Alice Solar City's four planned "iconic projects", after the Crowne Plaza Hotel. Due to the use of SolFocus Concentrator Photovoltaic (CPV) tracking technology, the Airport's power station will output more electricity than similar sized static systems.

The Airport has worked with Alice Solar City for several years on its solar power station project with support from Alice Springs-based CAT Projects.

Alice Solar City is a \$37 million project designed to explore how solar power, energy-efficient technologies and new approaches to electricity supply and pricing can encourage



## AT A GLANCE

SYSTEM RATING	235kW
ANNUAL OUTPUT	600MWh
TECHNOLOGY	SolFocus SF-1100 CPV tracking arrays
SYSTEM OWNER	Alice Springs Airport
PRODUCING	Approximately 28% of the airport's electricity, direct to its internal grid
PRINCIPAL CONTRACTOR	Ingenero Pty Ltd
TOTAL PROJECT COST	\$2.264 million
FUNDING	\$1.132 million from the Australian Government as part of Alice Solar City
CONSTRUCTION START	April 2010
PROJECT COMPLETION	September 2010

## BREAKING NEW GROUND!

- This is the first installation using SolFocus technology in the southern hemisphere
- It will be the largest tracking solar system in Alice Springs
- Alice Springs Airport will be the first Australian airport to have a large scale solar energy plant feeding back to its internal electricity grid

residents and businesses to become energy champions and develop a sustainable energy future.

Alice Solar City is not just about solar power, it's also about being energy wise.

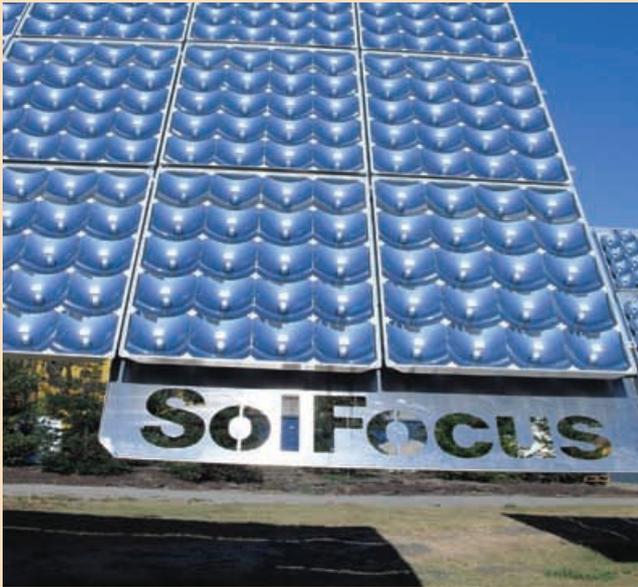
The commercial and public sectors use more than 50% of Alice Springs' power and are integral to the success of Alice Solar City.

Alice Solar City provides a range of services, financial incentives, and other offerings designed to help the commercial sector in Alice Springs become more energy efficient.

Alice Springs Airport  
Solar Power Station

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### ALICE SPRINGS AIRPORT

Alice Springs Airport Pty Ltd (ASAPL) has a 50-year lease plus 49 year option over the Alice Springs Airport from the Commonwealth of Australia under the Airports Act 1996.

ASAPL is owned by three major shareholders: Industry Funds Management Managed Funds, Hastings Funds Management/ AIX and Palisade Investment Partners Limited.

Alice Springs Airport is strategically important to the Central Australian community, business and government activity.

### INGENERO

In mid 2009, Ingenero Pty Ltd was selected by Alice Springs Airport to design and construct its solar power station.

Ingenero is a leading Australian renewable energy company specialising in solar power. Ingenero develops utility scale solar power stations using a variety of world-class solar technologies.

Ingenero is an Australian development partner for SolFocus, based in California, USA, whose concentrator photovoltaic technology will be used for this project.

### THE TECHNOLOGY

The Airport's solar power station comprises 28 SolFocus SF-1100 Concentrator Photovoltaic (CPV) tracking arrays. Each individual array is rated at 8.4kW peak power and measures eight metres wide and seven metres high.

SolFocus technology is particularly effective in areas of high Direct Normal Incident radiation, (sunny locations) like Alice Springs.

CPV systems are an emerging solar technology offering significant potential for cost reductions in photovoltaic (PV) systems.

Traditional PV systems use a large amount of photovoltaic material, which is costly. SolFocus technology on the other hand uses only small amounts, in conjunction with less expensive materials such as glass and steel, to capture sunlight and direct it onto a very small PV cell.

CPV technology could make the cost of solar energy more affordable in the future.

Most solar technology is static whereas the SolFocus arrays track the sun, increasing the amount of energy produced. By tracking the sun, the energy output is higher than traditional PV systems, as more of the sun's energy can be harnessed during the day.

SolFocus CPV technology is suitable for mass production and factory alignment which helps reduce the cost of production. It is one of the few CPV providers in the world with "commercially ready" technology.

CPV is likely to be more readily available in the next five years. The Alice Springs Airport project is helping to develop this technology.

The SolFocus arrays will produce about 600MWh of electricity a year, which will be fed directly into the airport's high voltage electricity network. SolFocus will also use one of the 28 airport arrays as a research and development tool to help gather data and test new products in the Alice Springs climate.

### FOR MORE INFORMATION

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#### SOLFOCUS CPV TECHNOLOGY

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