



press clip

# Solar array sets world standard

## Cameron Boon

A SOLAR power station set up at the Alice Springs Airport is the first of its kind in the southern hemisphere.

The 28 solar arrays cost \$2.3 million and took five years to develop, but will officially begin powering the airport tomorrow.

Each solar array is seven by eight metres and divided into 28 pieces. Each section houses 20 collection mirrors which are made of treated glass, aluminium, steel and a small triple junction photovoltaic cell.

The triple junction cells are made up of three layers – the first containing gallium indium phosphide, the second containing indium gallium arsenide and the third germanium.

The materials do not degrade in the sun like silicon (which is used in

most solar arrays) does.

The panels move in three directions and will follow the sun's path at all times to get the maximum amount of sunlight.

Ingenero was chosen to design and build the array midway through last year.

Ingenero Generation general manager Rodger Whitby said he expected the solar array to last for 30 years.

He said: "The technology has a warranty for 25 years, but we expect it to last longer than that.

"Each mirror magnifies the sun's energy by 650 on to a very high-efficiency photovoltaic cell and each array has an 8.4kW peak capacity.

"The total power provided will equal roughly 28 per cent of the power used by the airport."

The array will be controlled remotely from the Ingenero facility in Brisbane.

Alice Springs Solar Cities general manager Brian Elmer said the Alice Springs airport was pioneering solar technology.

"It is certainly one of the biggest tracking arrays, so it's using really unique technology.

Airport general manager Katie Cooper said the array would be maintained mostly by locals.

She said: "The airport technical facilities supervisor has been doing some training with Ingenero about the maintenance on site. We also have a contract with Ingenero, who will be able to do a lot of the work remotely.

"They can do that using the internet to monitor and track the calibration and make sure everything is working correctly and efficiently and they will be doing that for a number of years. There is a number of support staff

who have worked with Ingenero so if they need to engage in maintenance they can do so.

Ms Cooper said the array would be mostly self-cleaning.

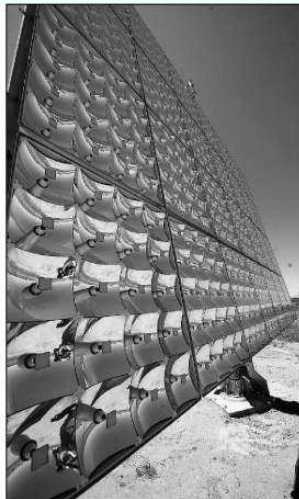
She said: "The glass is actually toughened and it essentially will be able to put up with dust and whatever lands on it and still be efficient.

"The array actually moves at various angles so any dust that gathers will fall off.

"When they are 'parked' at night, any wind or rain can also brush any dust off."

Climate Change Minister Karl Hampton said the system set "a tremendous example to the rest of the NT".

A public open day will be held tomorrow from 10am to noon at Roger Vale Drive. Parking will be available and there will be a free sausage sizzle.



LEFT: Chief executive of NT Airports Ian Kew, Katie Cooper, Don McDonald, Michael Ward and Brian Elmer at the launch of the first solar array for a southern hemisphere airport. RIGHT: The solar panels in all their glory. Pictures: JUSTIN BRIERTY