

## Case Study – Voyages Ayers Rock Resort

Voyages Ayers Rock Resort, 170 Yulara Dr, Yulara NT 0872



### PROJECT OVERVIEW

**Owner :** Epuron owns the project through Yulara Solar

**Owner's Engineer :** CAT Projects

**Capacity :** 1.8MW

**Commissioned :** March 2016

**Capital Cost :** \$7 million

**Developer :** Voyages Indigenous Tourism Australia

**Construction contractor :** CPS National

#### Solar Modules :

5150pcs Jinko EAGLE PID free JKM315PP-72 modules

#### Inverters :

SMA Solar Technologies AG 25 kW Sunny Tripower STP25000TL-30

#### Other equipment of note :

Monitoring is provided under ARENA funding via CAT Desert Knowledge Centre

In March 2016, a 1.8 MW solar system was commissioned at Voyages Ayers Rock Resort. Jinko Solar supplied 1.6MW EAGLE PID free modules to this project with other modules making up the balance. The project includes both roof and ground mount arrays, which ensures that energy is produced close to where it is needed.

Jinko Solar Eagle series PID free modules were attractive to Voyages due to their quality, the strong track record of Jinko Solar delivering globally on large scale solar projects, and Jinko's competitive price points.

Voyages Indigenous Tourism Australia ("Voyages") selected Epuron to design, build and own the project through Yulara Solar. Energy is supplied to Voyages under an operational lease model, which more effectively shares the long-term risks and opportunities of running solar PV systems in remote areas. This project is the first utility scale plant to be proposed and completed by an Indigenous Land Council.

The Clean Energy Finance Corporation (CEFC) provided a \$4.7 million loan to Epuron to construct, own and maintain the \$7 million solar array. Separately, the Australian Renewable Energy Agency (ARENA) provided \$450,000 funding to Voyages for monitoring and analysis purposes.

The main motivation for Voyages to have the solar system installed was to reduce operating costs for both the resort and its existing electricity supplier (Power and Water Corporation). Prior to the installation of the solar system, Yulara relied entirely on a natural gas generator based mini-grid managed by the Power and Water Corporation and Territory Generation. The cost of running a generator based system is exorbitant, which made installing the solar system not only good for the environment, but also one of the best financial investments the community could ever make.

Voyages conducted extensive feasibility analysis in conjunction with CAT Projects, and it is anticipated that the combined system will provide approximately 15 per cent of the resort's average electricity demand and 30 per cent during peak times.



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One of the challenges of any large scale solar project is gaining agreement from the multiple stakeholders around project objectives and solar system location. This was particularly the case with the incumbent generators, multiple financiers, and existing land use patterns in such a pristine natural environment. Epuron worked with Voyages and CAT to create a design that was sensitive to the requirements of the resort whilst delivering an efficient design.

The system is expected to offset a minimum of 2733 tonnes CO2 per year. Its largest array is the ground-mounted 1 MW area in the Desert Gardens.

## About Jinko Solar

JinkoSolar (NYSE: JKS) is a global leader in the solar industry. JinkoSolar distributes its solar products and sells its solutions and services to a diversified international utility, commercial and residential customer base in China, the United States, Japan, Germany, the United Kingdom, Chile, South Africa, India, Mexico, Brazil, the United Arab Emirates, Italy, Spain, France, Belgium, and other countries and regions.

JinkoSolar has built a vertically integrated solar product value chain, with an integrated annual capacity of 3.5 GW for silicon ingots and wafers, 3 GW for solar cells, and 6.5 GW for solar modules, as of March 31, 2016. JinkoSolar also sells electricity in China, and had connected approximately 1,007 MW of solar power projects to the grid, as of March 31, 2016.

In Australia, Jinko Solar has supplied numerous landmark projects such as 20MW Royalla, 1 MW Brisbane Markets and more. Jinko Australia has unrivalled local support with 8 points of presence in Australia including head office in Sydney, five warehouses, sales team, and sales support.