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FACT SHEET

***Cloncurry Solar Farm*: Artist's Impression**

Cloncurry Solar Farm

Location

The Cloncurry Solar Farm is to be located on Sir Hudson Fysh Drive, just north of the local Cemetery and close by the Cloncurry North electricity sub-station.

Project Details

Ingenero will build a 2.128MW solar farm with the support of a $5.7M grant from the Queensland Government and additional funding from a leading private equity firm. The 7,600 poly-crystalline silicon PV panels will generate approximately 3,700MWh of electricity per year; enough power for approximately 500 households.

The PV panels produce DC power which will be converted to 240V AC power by 7 central inverters, each with a capacity of 330kW. The low voltage power will be further converted to high voltage electricity (11,000V) using a step-up transformer before being fed into the local Ergon Energy power network for consumption within Cloncurry.

The 7,600 solar panels will be mounted on multiple rows of fixed steel and aluminium structures at an angle of 25° and facing due north to maximize the exposure to the sun's rays. The supporting posts for the mounting system will be driven into the ground using a very accurate GPS guided pile driver similar to those used for roadside safety barriers.

Timeline & Opportunities

After being awarded the contract by the Queensland Government, Ingenero will finalise a number of key arrangements in order to enable the project to proceed to construction. These include:

- the funding agreements,
- permitting and approvals,
- network connection agreement with Ergon Energy,
- long term lease of the land from Cloncurry Shire Council, and
- a power purchase agreement with the local electricity retailer, Ergon Energy.

Discussions are well progressed on all of these items already, however they are typically the longest lead-time items in the development of such a project.

Subject to receiving the various approvals and concluding the key agreements on a timely basis, construction is due to commence in July 2012 and, weather permitting, is scheduled for completion in October 2012.

During the construction phase at least 10 full time equivalent roles will be required on site, and at times as many as 15 people may be required. In addition, another 5 Ingenero employees in Brisbane will be fully occupied on the design, planning and management of the project for many months. Considerable indirect employment will also be created by the project for activities such as the network connection work, local accommodation, road freight, catering etc.

One full time role will be created in the long term to service the ongoing maintenance of the solar farm.

VITAL STATISTICS

Total energy capacity	2.128 MW
Energy capacity Approximate number of megawatt hours	3,700 MWh per annum
Total number of ground mount solar panels	7,600
Total number of watts per solar panel	280 W
Solar panel technology	Poly-crystalline silicon
Total number of inverters	7 x 330kW
Inverter technology	Central (not string)
Step up transformer	Increase voltage from 240 volts to 11,000 volts
Average greenhouse gas emissions offset each year[1]	3,267 tonnes of CO_2-e
Average greenhouse gas emissions offset in lifetime[2]	76,770 tonnes of CO_2-e
Funding from the Queensland Government	$5.7 million

[2]The average lifetime of solar PV panels is 25 years.

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Contact Us

For more information on how an Ingenero system can help your business reach its sustainability goals, contact Ingenero on **1800 99 33 34** or visit **www.ingenero.com.au**