



Media Release

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World first to combine big solar and storage

A world-leading project in far north Queensland is set to combine big battery storage and big solar to supply solar power after sundown and during peak usage times.

The Australian Renewable Energy Agency (ARENA) is providing \$17.4 million funding support for Conergy to build and operate a 10.8 MW (AC) solar photovoltaic (PV) plant with 1.4 MW / 5.3 MWh of lithium-ion battery storage near the town of Lakeland.

ARENA CEO Ivor Frischknecht said the landmark project was well placed to work alongside ARENA's major push to deploy more large-scale solar PV plants across Australia.

"Figuring out how solar PV and battery storage technologies best work together at a large scale will be crucial for helping more renewables enter our grids," Mr Frischknecht said.

"We know that battery storage will play a critical role in our future energy systems. The benefit of adding batteries to solar farms is simple; they store energy from the sun for use at peak times and overnight. They can also smooth solar energy output on cloudy days.

"This plant will generate and store enough renewable energy to power more than 3000 homes and create up to 60 jobs in the Lakeland region during construction.

"The global energy transition is happening faster than many anticipated and Australia is well placed to be a key player. Our growing expertise in integrating renewables and batteries could readily translate into economic opportunities including export dollars in world markets.

"Solar farms with storage can be especially useful at the edges of our electricity grids. This project adds to ARENA's portfolio of fringe-of-grid projects, which prove how renewables can enhance the reliability of energy supply in regional Australia and benefit local networks.

"Fringe-of-grid locations face a number of challenges with reliability and outages caused by network constraints, a lack of infrastructure and long distance power lines.

"This project is aiming to be the first in the world to test a concept known as 'islanding' from the main electricity grid. The local town of Lakeland will be powered solely by solar and batteries for several hours during these tests."

The project will be connected to the Ergon Energy network. A detailed battery testing plan will be implemented over the first two years of operations, culminating in testing 'island mode' during the evening peak.

Mr Frischknecht said ARENA had worked with Conergy to form a knowledge sharing steering committee, joined by BHP Billiton, Ergon Energy and Origin Energy.

"We welcome BHP Billiton, Ergon and Origin Energy's involvement. Sharing these unique lessons is expected to accelerate similar developments across Australia," Mr Frischknecht said.

"BHP Billiton will gain valuable insights into the potential for solar and storage to assist its remote operations, Ergon is considering if the approach could help avoid network upgrade costs in other regional QLD communities and Origin is buying the power from the plant."

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“More broadly, the project will develop an improved connection process for solar PV plus battery plants and share information with the industry and relevant regulatory bodies.”

BHP Billiton Senior Manager Environment Dr Graham Winkelman said beyond contributing to global greenhouse gas emissions reductions, solar and storage projects may also assist BHP Billiton in the future to reduce its own operating emissions while helping to support energy reliability at some of our more remote operations.

“BHP Billiton has a commitment to accelerating the development and deployment of low emissions technologies and we believe that to do this we must facilitate the sharing of knowledge and lessons from projects such as the Lakeland Solar and Storage Project,” Dr Winkelman said.

The \$42.5 million project is scheduled for completion in April 2017.

About ARENA

ARENA was established by the Australian Government to make renewable energy technologies more affordable and increase the supply of renewable energy in Australia. Through the provision of funding coupled with deep commercial and technical expertise, ARENA provides the support needed to accelerate the development of promising new solutions towards commercialisation. ARENA invests in renewable energy projects across the innovation chain and is committed to sharing knowledge and lessons learned from its portfolio of projects and information about renewable energy. ARENA always looks for at least matched funding from the projects it supports and to date has committed \$1.1 billion in funding to more than 250 projects. For more information, visit www.arena.gov.au.

About Conergy

Conergy is the project owner and developer of the Lakeland Solar & Storage Project. It is one of the world's largest downstream solar companies, specialising in the development, design, finance, build and long-term asset management of commercial, industrial and utility-scale solar power systems. With almost two decades of solar experience, it has completed over 1.5 GW across more than 300 projects globally in more than 15 countries.