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Australia's first commercial diesel displacement solar plant starts operation

Groundbreaking solar photovoltaic project supplies renewable energy to remote mining operation

BRISBANE, Australia, 29 September 2015 - First Solar, Inc. (NASDAQ: FSLR), Rio Tinto and the Australian Renewable Energy Agency (ARENA) today announced Australia's first commercial diesel displacement solar plant has successfully commenced commercial operation at a remote mine. The Weipa Solar Plant will generate electricity for Rio Tinto's Weipa bauxite mine, processing facilities and township on the Western Cape York Peninsula in Queensland, Australia.

Rio Tinto general manager, Weipa Operations, Gareth Manderson said "This power purchase arrangement is an opportunity to trial the introduction of an alternative power source such as a solar plant into a remote electrical network like the one here in Weipa.

"At peak output, the 1.7 megawatt (MW) capacity solar plant has the capacity to generate sufficient electricity to support up to 20 per cent of the township's daytime electricity demand."

"We expect the energy from the solar plant will help reduce the diesel usage at Weipa's power stations and save up to 600,000 litres of diesel each year. This will reduce Weipa's greenhouse gas emissions by around 1,600 tonnes per year, equivalent to removing around 700 cars."

The solar plant is expected to produce an average of 2800 megawatt hours of electricity per year. The electricity from the 18,000 advanced First Solar photovoltaic (PV) modules that have been connected to Rio Tinto's existing mini-grid will be purchased by Rio Tinto under a 15-year Power Purchase Agreement.

First Solar's FuelSmart™ solutions combine PV generation with a fossil fuel engine generator to provide optimal fuel savings while maintaining system reliability.

"It is already widely acknowledged that solar electricity is typically cheaper than diesel-powered electricity, particularly in remote locations," said Jack Curtis, First Solar's Regional Manager for Asia Pacific. "The significance of the Weipa Solar Plant is that it provides the opportunity to demonstrate that PV-diesel hybrid projects can also be as reliable as stand-alone diesel-powered generation."

"In recent years, attention has been focused on the technical challenges of high-penetration PV-diesel hybrids. At the Weipa Solar Plant, First Solar is seeking to deliver a reliable electricity supply without diverting capital costs away from Rio Tinto's critical mine operations. Proving this commercial model has the potential to be a watershed moment for the diesel hybrid application globally," said Mr Curtis.

ARENA CEO Ivor Frischknecht congratulated First Solar and Rio Tinto on achieving this Australian first, which has the potential to bolster the mining industry's confidence in renewable energy as a reliable off-grid power source.

"This is the first time a remote Australian mining operation has been supplied with power from solar PV on such a scale. The success of phase one is set to create a precedent for industry by demonstrating that solar PV is a viable option for powering off-grid locations, like mine sites, in Australia," Mr Frischknecht said.

"ARENA was pleased to provide an initial $3.5 million for this early mover project and up to $7.8 million is available for the second phase. Similar ARENA-supported projects now underway, or in the pipeline, will build on this landmark project to further prove the reliability of integrating renewable energy solutions in off-grid locations while helping to drive down costs and the need for subsidy."

Contingent on the success of phase one, the project partners have the option of entering into a second phase that would include a storage component. At 6.7MW, the expanded plant would have the potential to save approximately 2,300,000 litres of diesel on average each year, reducing Weipa's greenhouse gas emissions by around 6,100 tonnes per year.

About First Solar, Inc.
First Solar is a leading global provider of comprehensive photovoltaic (PV) solar systems which use its advanced module and system technology. The company's integrated power plant solutions deliver an economically attractive alternative to fossil-fuel electricity generation today. From raw material sourcing through end-of-life module recycling, First Solar's renewable energy systems protect and enhance the environment. For more information about First Solar, please visit www.firstsolar.com

About Rio Tinto
Rio Tinto is a leading international mining company in the business of finding, mining, and processing mineral resources. Its major products are aluminium, copper, diamonds, thermal and metallurgical coal, uranium, gold, industrial minerals (borax, titanium dioxide and salt) and iron ore. Rio Tinto's Weipa bauxite operations are located on Western Cape York Peninsula in Queensland, Australia. The Weipa operation consists of two continuous mining operations at East Weipa and Andoom, two beneficiation plants, 19 kilometres of railway to transport mined bauxite to the port area, and two ship loaders. In 2014, the mine shipped 26.46 million tonnes of metal grade bauxite. Weipa operates under three Indigenous agreements and is a major contributor to the regional economy and town infrastructure. For more information, visit www.riotinto.com

About the Australian Renewable Energy Agency (ARENA)
ARENA was established by the Australian Government to make renewable energy technologies more affordable and increase the amount of renewable energy used in Australia. ARENA invests in renewable energy projects, supports research and development activities, boosts job creation and industry development, and increases knowledge about renewable energy. ARENA is currently supporting more than 200 projects and is actively seeking new projects to support. Visit www.arena.gov.au

For First Solar Investors
This release contains forward-looking statements which are made pursuant to safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include statements, among other things, concerning: our business strategy, including anticipated trends and developments in and management plans for our business and the markets in which we operate; future financial results, operating results, revenues, gross margin, operating expenses, products, projected costs, warranties, solar module efficiency and balance of systems (BoS) cost reduction roadmaps, restructuring, product reliability, investments in unconsolidated affiliates, and capital expenditures; our ability to continue to reduce the cost per watt of our solar modules; our ability to reduce the costs to construct photovoltaic (PV) solar power systems; research and development programs and our ability to improve the conversion efficiency of our solar modules; sales and marketing initiatives; and competition. These forward-looking statements are often characterized by the use of words such as "estimate," "expect," "anticipate," "project," "plan," "intend," "believe," "forecast," "foresee," "likely," "may," "should," "goal," "target," "might," "will," "could," "predict," "continue" and the negative or plural of these words and other comparable terminology. Forward-looking statements are only predictions based on our current expectations and our projections about future events. You should not place undue reliance on these forward-looking statements. We undertake no obligation to update any of these forward-looking statements for any reason. These forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause our actual results, levels of activity, performance, or achievements to differ materially from those expressed or implied by these statements. These factors include, but are not limited to, the matters discussed in Item 1A: "Risk Factors," of our most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other reports filed with the SEC.

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