February 26, 2013

First Solar Sets New World Record for CdTe Solar Cell Efficiency

18.7 Percent Research Cell Efficiency Confirmed by NREL

TEMPE, Ariz. & PERRYSBURG, Ohio--(BUSINESS WIRE)-- First Solar, Inc. (Nasdaq: FSLR) today announced it set a new world record for cadmium-telluride (CdTe) photovoltaic (PV) solar cell conversion efficiency, achieving 18.7 percent cell efficiency in tests confirmed by the U.S. Department of Energy's National Renewable Energy Laboratory (NREL). The record-setting cell was constructed at the Company's Perrysburg, Ohio factory and R&D center using processes and materials — including the glass substrate — that are designed for commercial-scale manufacturing.

First Solar's R&D team in Perrysburg, Ohio, set a new world record for CdTe solar cell efficiency, 18.7 percent, as certified by the National Renewable Energy Laboratory. (Photo: Business Wire)

"This achievement showcases the huge potential of CdTe compared to other PV technologies and highlights the performance gains we continue to achieve thanks to our consistent and strong investment in R&D," said Raffi Garabedian, First Solar's Chief Technology Officer. "We are confident the advanced technologies and processes we developed for this record-setting cell will further enhance the performance of our future production modules and power plants."

First Solar has continued to transfer its success in the R&D lab into its commercial modules, increasing its average production module efficiency to 12.9 percent in the fourth quarter of 2012, up 0.7 percentage points from 12.2 percent in the fourth quarter of 2011. The Company's lead line was producing modules with 13.1 percent efficiency during the fourth quarter, up from 12.6 percent in the same period a year ago.

Since it began commercial production in 2002, First Solar has produced more than 90 million of its advanced thin-film solar modules with a capacity of over 7 gigawatts (GW), enough to provide clean electricity for approximately 3.5 million homes and displace 4.7 million metric tons of CO_2 annually, based on world averages. If laid end-to-end, the modules would circle the equator nearly three times. First Solar utilizes a continuous manufacturing process which transforms a sheet of glass into a complete solar module in less than 2.5 hours, contributing to the industry-leading energy payback time and low carbon footprint of systems using First Solar PV modules.

For more information visit: http://www.firstsolar.com/Innovation/Advanced-Thin-Film-Modules.

About First Solar, Inc.

First Solar is a leading global provider of comprehensive photovoltaic (PV) solar systems which use its advanced thin-film modules. 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 collection and recycling, First Solar's renewable energy systems protect and enhance the environment. For more information about First Solar, please visit www.firstsolar.com.

For First Solar Investors

This release contains forward-looking statements which are made pursuant to the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934. The forward-looking statements in this release do not constitute guarantees of future performance. Those statements involve a number of factors that could cause actual results to differ materially, including risks associated with the company's business involving the company's products, their development and distribution, economic and competitive factors and the company's key strategic relationships and other risks detailed in the company's filings with the Securities and Exchange Commission. First Solar assumes no obligation to update any forward-looking information contained

in this press release or with respect to the announcements described herein.

Photos/Multimedia Gallery Available: http://www.businesswire.com/multimedia/home/20130226006678/en/

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Source: First Solar, Inc.

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