



Press Release

First Solar's Breakthrough Technology Wins R&D 100 Award

- First Solar and the National Renewable Energy Laboratory (NREL) recognized for inventing one of the 100 most technologically significant new products of the year

Phoenix, AZ, September 11, 2003—First Solar, a leader in the development and manufacture of high quality, high performance solar modules, in collaboration with the Department of Energy's National Renewable Energy Laboratory's National Center for Photovoltaics, has won a 2003 R&D 100 Award for the development of a high-rate vapor transport deposition (HRVTD) process. HRVTD is at the heart of First Solar's high volume manufacturing line which produces thin-film photovoltaic (PV) modules. Sponsored by R&D Magazine, the 41-year old awards program recognizes the 100 most significant new technologies each year, including such breakthroughs as the automated teller machine (1973), the fax machine (1975), the liquid crystal display (1980), and HDTV (1998).

First Solar's patented HRVTD process dramatically lowers the cost of PV modules since only small, micron amounts of semiconductor material are deposited onto the glass substrate which are then processed through an automated, continuous feed production line. As a result, First Solar's PV modules take less time to manufacture than traditional solar technologies and have low raw material and labor costs.

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“The cost savings realized by this deposition process is, in some sense, the answer to the widespread utilization of PV modules. I believe this will help us turn the corner in thin film PV,” said Ken Zweibel, manager of NREL’s Thin Film Partnership. “It won’t happen overnight, but it will happen if this technology is fully developed and manufactured in large volume.”

“We are very proud of the award winning collaborative development of the HRVTD process”, said Rick Powell, manager of Semiconductor Technologies with First Solar. “NREL’s long standing support has been instrumental in achieving this breakthrough.”

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About First Solar

First Solar is a leader in the development and manufacture of high quality, affordable solar modules. With its state-of-the-art manufacturing facility in Perrysburg, Ohio, First Solar is producing high performance PV modules for large scale solar power plants, commercial and residential buildings, and off-grid rural electrification applications. First Solar is committed to the continuous improvement of its advanced, thin film semiconductor deposition and high volume manufacturing processes to meet the demand for lower cost solar energy solutions.

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About NREL

NREL is a U.S. Department of Energy national laboratory managed by Midwest Research Institute, Battelle and Bechtel. The laboratory is a leading center for research into solar energy technologies, wind energy, plant- and waste-derived fuels and chemicals, energy-efficient buildings, advanced vehicle design, geothermal energy and hydrogen and fuel cells technologies.

For more information, please contact NREL Public Affairs at (303) 275-4090 or email Public_Affairs@nrel.gov or visit NREL on-line.