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## Solar Junction Breaks World Record with 43.5% Efficient CPV Production Cell

Accelerated efficiency gains are key driver for global CPV growth, says CEO

**SAN JOSE, Calif., April 14, 2011** — Solar Junction, a developer of high efficiency multi-junction cells for the concentrated photovoltaic (CPV) market, today announced it has set a world-record for 43.5 percent efficiency on a commercial-ready production cell. This achievement was, in part, supported under the U.S. Department of Energy (DOE) PV Incubator Program, managed through DOE's National Renewable Energy Laboratory (NREL). The cell's efficiency was confirmed by NREL's Measurement and Characterization Laboratory. The 5.5 mm x 5.5 mm production cell tops the current record by 1.2 percent and is significantly higher than the average efficiency gain achieved by previous record holders. The Solar Junction cell measured a peak efficiency of 43.5 percent at greater than 400 suns and still maintained an efficiency as high as 43 percent out to 1,000 suns.

Solar Junction's cells incorporate the company's proprietary adjustable spectrum latticematched, A-SLAM<sup>™</sup> technology, which enables the company to more optimally partition the solar spectrum for maximum efficiency and greater reliability. Increases in CPV cell efficiencies are a key driver for improving CPV economics, with each cell efficiency gain leveraged and multiplied in value by the components that account for the remaining 80 percent of total system costs.

"In the time I've been on Solar Junction's board, the company has hit all of its aggressive efficiency milestones on target," said Dr. Forest Baskett, General Partner at New Enterprise Associates. "That ability to deliver and execute sets it apart from the pack and positions it for swift market gains."

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Over the past four years, world record CPV cell efficiencies have averaged improvements of 0.4 percent annually. By contrast, over the past nine months Solar Junction has been on a steep efficiency trajectory with its 5.5 mm x 5.5 mm commercial-ready production cell. This 43.5 percent achievement comes just two months after Solar Junction reported achieving an NREL verified 41.4 percent efficiency, also achieved as part of the Company's PV Incubator subcontract.

"There's no question that we've been on a nine-month tear," said Jim Weldon, CEO of Solar Junction. "We've delivered on milestone after milestone and attribute this to our superior performing technology platform, driven by our dedicated, hard-charging technical team, supported by our integrated in-house manufacturing line that has enabled, and will continue to enable, multiple iterations of product improvement on an accelerated timeline. With A-SLAM<sup>™</sup>, we have a highly extensible technology that is actually delivering a clear and continued path to higher efficiencies in both the short and long term. That bodes well for CPV."

In February, Solar Junction made the short list of finalists selected for post-selection due diligence within the DOE Loan Guarantee Program (LGP). The Company plans to scale in-house manufacturing to 250 MW capacity and ship commercial cells within the year.

## **About Solar Junction**

Solar Junction is a manufacturer of high efficiency III-V multi-junction solar cells based on lattice-matched 1eV materials. The Company is dedicated to providing the industry's highest efficiency solar cells to enable CPV as a cost effective energy solution. Founded in 2007, Solar Junction is headquartered in San Jose, California. Investors include New Enterprise Associates, Draper Fisher Jurvetson and Advanced Technology Ventures. For more information, please visit <u>www.sj-solar.com</u>