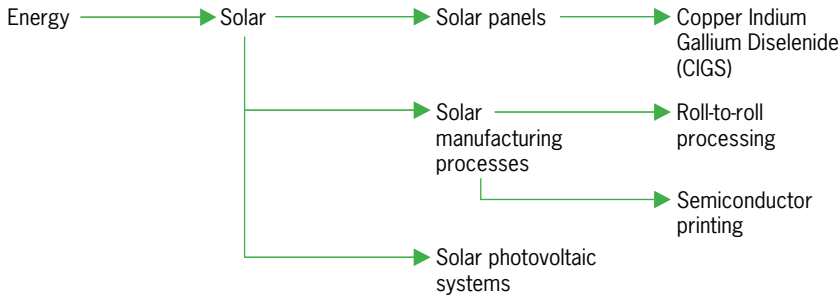


Key Technologies Roll-to-roll thin-film manufacturing, CIGS semiconductor “ink,” printable electrodes

Key Product Families Thin-film solar cells, solar modules

Products Available? Yes

Areas of Activity



Company Snapshot

Start-up Nanosolar is a flexible solar cell manufacturer using an advanced, engineered semiconductor material – copper indium gallium selenide, or CIGS – as the basis of its solar cells. Thin-film CIGS solar cells aren't new – they've been made since the 1980s by companies like ARCO (now Shell Solar) by depositing CIGS materials in a vacuum. But the high cost and low throughput of these vacuum-processing methods have kept thin-film CIGS solar cells from being cost-competitive with conventional silicon varieties.

Nanosolar has attacked this problem through materials science, reformulating its CIGS materials into 20 nm nanoparticles dispersed in a solvent as an ink. This ink can be used to print solar cell structures onto flexible plastic substrates via inkjet methods, in a roll-to-roll process running at up to 1,000 feet per minute – which Nanosolar believes will translate into a cost-per-watt up to 90% lower than current silicon solar cells. Recent testing by the U.S. National Renewable Energy Laboratory showed 16% efficiency – competitive performance versus standard silicon-based photovoltaics, but still below the 20%-plus efficiencies seen in high-end silicon products. The company has more than 120 patents issued or at the application stage.

Nanosolar has raised a cumulative \$125 million in venture capital and is currently building manufacturing facilities for its flexible solar cells in California and Germany, aiming at volume production in 2007. These facilities are touted by the company as being the largest solar cell manufacturing capability in the world; cell manufacturing will take place at Nanosolar's Palo Alto location, while final assembly and packaging will take place at its German facility operating with partner ConErgy. As of late 2006, Nanosolar expected to have significant product sales in 2007, claiming that the first five quarters of future output are already sold; Nanosolar will target the power plant and commercial segments of the solar market first, satisfying demand predominately in Europe and Asia.

Key Figures

Revenue: > \$0, ≤ \$100,000 (2005) (estimate) – Employees: 21 to 50 (2005) – Unprofitable (estimate)

Nanosolar
 2440 Embarcadero Way
 Palo Alto CA 94303-3313
 United States
 www.nanosolar.com

Type: Start-up
 Status: Small/mid-sized company
 Year Founded: 2001
 Parent Company: None

Level of Cleantech Focus



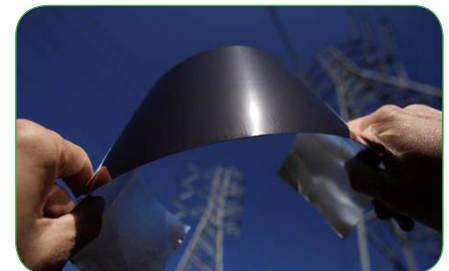
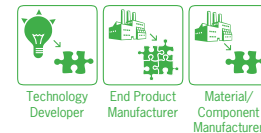
Platform/Application Technology



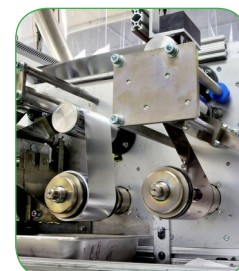
Business Model



Value Chain Role



Nanosolar's flexible solar panel



Nanosolar pilot-line production printer

This report is based on information obtained from sources believed to be reliable but no independent verification has been made, nor is its accuracy or completeness guaranteed. This report is published solely for informational purposes and is not to be construed as a solicitation or an offer to buy or sell any securities or related financial instruments.

Key People**Martin Roscheisen**
Chief Executive Officer

Founder, named on the top 10 entrepreneurs in the U.S., experience building several companies now worth \$1.2 billion, numerous engineering degrees

Werner Dumanski
Executive Vice President of Operations

Former top manufacturing executive at Hitachi/IBM

Chris Eberspacher
Vice President of Engineering

More than 25 years of photovoltaics research and development (R&D) experience, former head of all R&D of ARCO Solar (today Shell Solar)

Brian Sager
Vice President of Finance & Corporate Development

Handles company's finances, serves on Board of Directors, former Ernst & Young executive

Contact Information

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Venture Capital Funding

Transaction date	Transaction type	Transaction amount (US\$ millions)	Transaction investors
June 19, 2003	Series A	5.0	Benchmark Capital, U.S. Venture Partners
May 1, 2005	Series B	20.0	Benchmark Capital, Mitsui & Co. Venture Partners, Mohr, Davidow Ventures, OnPoint Technologies, U.S. Venture Partners
June 21, 2006	Series C	75.0	Beck Energy GmbH, Benchmark Capital, GLG Partners LP, Grazia Equity GmbH, Mitsui & Co. Ltd., Mohr, Davidow Ventures, OnPoint Technologies, S.A.C. Capital Management, LLC, Swiss Reinsurance Co.

Company Relationships

Company	Type	Status
ConErgy	Development partner	Active

Key Events

Date	Description
August 1, 2006	Nanosolar, Conergy signed cooperation agreement
June 21, 2006	Announced plans to build world's largest solar manufacturing plant in San Francisco Bay Area
June 21, 2006	Announced completion of \$100 million Series C funding
June 13, 2005	Closed \$20 million Series B financing
August 20, 2004	Won prestigious DARPA contract for \$10.3 million
June 1, 2001	Founded