



## HISTORY OF NANOSOLAR

### Highlight 2002:

Nanosolar is founded to cut the cost of solar electricity by an entire order of magnitude.

Initial financing by the founders is quickly supplemented by founders of other successful technology companies such as Google.

An "audacious" research and development path is charted that relies on breakthroughs in seven technology areas.

**2000/2001 Backdrop:** Public policy leadership by Japan and Germany creates an investible regulatory framework for solar electricity technology; a multi-billion dollar global market is enabled.

**May 2002:** Martin Roscheisen and Brian Sager, two former Stanford PhD candidates, found Nanosolar -- the first time that anyone creates a company in Silicon Valley focused on making solar power more broadly affordable. The goal is audacious: Making solar electricity an entire order of magnitude less expensive. The company receives initial funding from the founders.

**July 2002:** The founders of Google and a set of experienced "angel" investors provide first external seed financing. For many, this is the first angel investment in over two years.

**Dec 2002:** In the midst of the post-dotcom and the post-9/11 "nuclear winter" in venture financing (which included a near complete halt in early-stage startup funding), Nanosolar becomes the first solar power technology company in history to receive venture-capital backing from blue-chip Sand-Hill-Road venture firms. Nanosolar's Series A financing stands out in at least three regards: The funding of an energy company, of a solar electricity company, of a company desiring to be a manufacturer.

**April 2003:** After evaluating a broad array of printable solar-cell technologies, the company team decides to focus its roll-printing approach on a Copper-based semiconductor called CIGS.

**June 2003:** With the NY Times and the WSJ reporting the company's formation, Nanosolar is on the public radar.

**Dec 2003:** An ink formulation and process is defined that uncompromisingly eliminates the key shortcomings of prior art and makes the approach scalable to mass manufacturing. More than 60 patents are now filed.

**March 2004:** The company licenses valuable patents from Dr. Bulent Basol, an early pioneer in printed CIGS.

**June 2004:** Nanosolar is first in history to achieve a key technology milestone: to simply roll-print the semiconductor of a solar cell that can be as efficient and durable as a conventional silicon cell.

**October 2004:** Nanosolar broadens its intellectual property portfolio by acquiring the complete IP assets of Unisun Corporation, another early pioneer in printing CIGS, with IP assets including the earliest filing date of any printed-CIGS patent.

**Jan 2005:** Werner Dumanski, previously IBM's top manufacturing executive, joins Nanosolar. Dumanski quickly adjusts from managing an organization of 12,000 to a team of 2.

**June 2005:** Nanosolar closes \$20 million in a Series B financing, bringing total amount of funding secured to \$48 million.

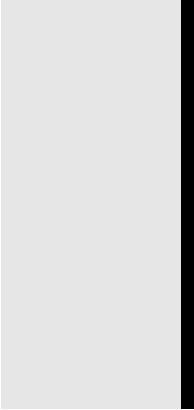
**March 2006:** Nanosolar's research and development team produces cells with world-record 14.6% efficiency: the most efficient printed cell ever. NREL certifies these efficiencies achieved. [Peer-reviewed scientific publication](#).

**June 2006:** Nanosolar secures \$100,000,000 from a global group of top investors (the "[largest greentech financing in 2006](#)"). Nanosolar commences with its plan to build a factory with annual output of multiple 100MW's.

**August 2006:** Nanosolar and Conergy AG, the world's largest PV system integrator, announce a cooperation agreement.

**January 2007:** Nanosolar secures 647,0000 sq ft of space for manufacturing.

**March 2007:** The U.S. Department of Energy selects Nanosolar among a stiffly competitive field of applicants and awards \$20 million to the company, the largest amount any company receives in the United States.



**March 2007:** James McNicholas, the top finance executive of Hitachi's \$5 billion storage business, joins Nanosolar as Chief Financial Officer.

**November 2007:** Move into the company's San Jose, California, manufacturing facility is completed.

**December 2007:** First commercial panels shipped.

**March 2008:** World's largest utility partners strategically and invests in Nanosolar.

**June 2008:** 1GW CIGS deposition throughput achieved.