

SUNPOWER

SunPower Overview 2011



Established and Proven Technology Innovator

Founded in 1985

Publicly traded company: NASDAQ

5,000 employees, 100% solar

25 years of R&D, 120 patents

Diversified portfolio: residential, commercial, power plant & utility

World record cell efficiency: 24,2%

550 systems over 4 continents

Over 600 MW installed or under construction worldwide

SunPower Business Segments







Residential

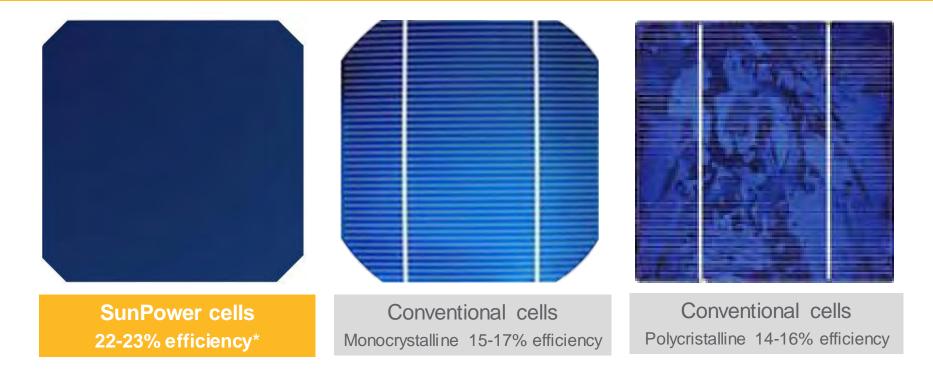
Commercial

Power Plants



Most Efficient Cells in the Industry

SunPower cells are up to 50% more efficient than conventional ones due to unique all-back contact design



* SunPower reached 24,2% in a R&D prototype

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How SunPower Cells achieve record efficiencies

SunPower Solar Cell LIGHTLY DOPED FRONT DIFFUSION TEXTURE + ARC REDUCES RECOMBINATION LOSS ASSIVATING SIO² LAYE **REDUCES SURFACE** RECOMBINATION LOSS N-TYPE HIGH LIFETIME SILICON REDUCES BULK RECOMBINATION N+ N+ P+ BACKSIDE GRIDHNES LOCALIZED CONTACTS BACKSIDE MIRROR REDUCES CONTACT REDUCES BACK LIGHT ABSORPTION HIGH-COVERAGE METAL RECOMBINATION LOSS & CAUSES LIGHT TRAPPING **REDUCES RESISTANCE LOSS** Conventional Solar Cell TEXTURE + ARC GRIDUNES NUTYPE DIFFUSED JUNCTION FRONT N+ P-TYPE MULTI-CRYSTALINE SILICON BACK

ALLIMINUM PASTE

1. Maximum light capture

Up to 10% more sunlight on cell surface

Reduced Resistive Iosses

Back contacts enable wider and thicker, lower resistance contacts

3. Minimum Recombination Loss

 Passivating Silicon dioxide on front and back of cell minimizes recombination loss

4. Maximum Absorption of Light

 Back-side mirror gives photons a second chance to generate power

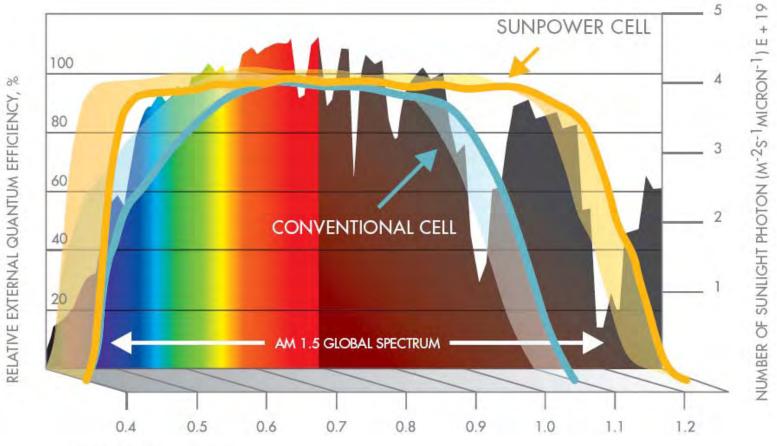
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SILVER PASTE PAD

Broad Spectral Response

SunPower Cells capture more light from the blue and infra-red parts of the spectrum, enabling higher performance in overcast and low-light conditions



WAVELENGTH, MICRONS

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More Energy Delivered per Rated Watt

Superior light capture

Superior temperature performance

No light-induced degradation

Highest cell efficiency

SunPower Panels



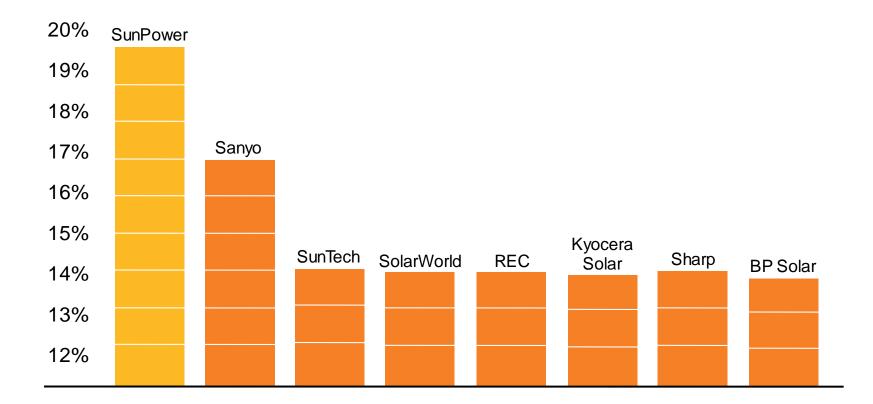
Most powerful PV panels on the market

- Industry leading panel efficiency: 19,5%
- Produce up to 50% more than conventional panels and up to 4 times more than thin film panels per unit area
- Highest real-world performance in high temperature and low light

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World Record Efficiency

SunPower Solar Panels are up to 50% More Efficient

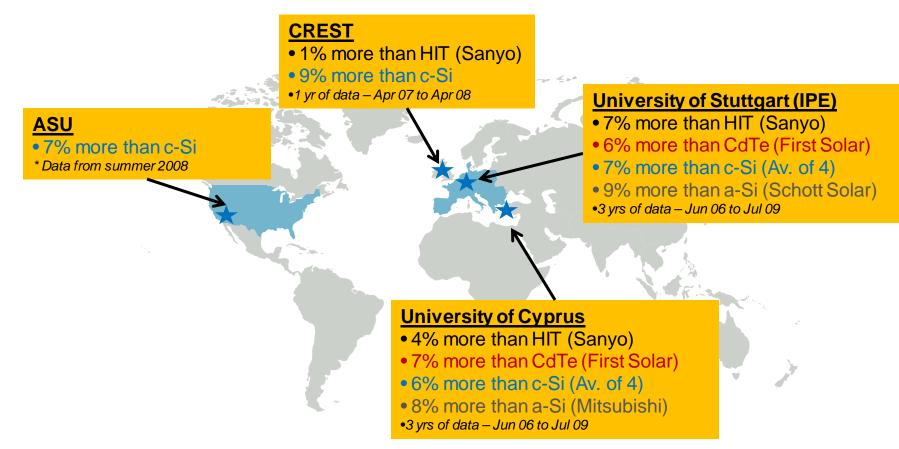


As published in Photon International, February 2009

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SunPower Energy Performance

<u>Independent tests</u> show that SunPower panels provide <u>superior</u> energy performance (kWhs/kWp) at sites throughout the world



★ Independent studies measuring kW-hrs generated <u>per kW</u>

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SunPower T10 Solar Roof Tile



Patented next-generation commercial roofing system

- Best in class non-penetrating mounting system
- Higher energy delivery due to10 degree tilt and sunlight reflectors
- Lightweight with high wind-performance

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More power, a better investment

Highest panel efficiency

Most sunlight captured

Exceptional performance even in low-light environment

Greatest long-term energy production

Reliable system performance

Why efficiency matters Maximize system size



SunPower solar



Conventional solar

High efficiency solar technology delivers higher power density
Resulting system capacity generates more of the energy you need

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Why efficiency matters Minimize Roof Space



SunPower solar



Conventional solar

Use significantly less space to generate the same amount of power
Select optimal part of the roof for the solar array

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Superior Quality

- World class quality assurance processes
- ISO 9001 certification

SUNPOWER

- IEC 61215, 61730 and UL 1703 panel certifications
- Industry-leading panel warranty



Quality built to last: SunPower Warranties



10 year product warranty 25 year performance warranty





A rock-solid partner with a strong balance sheet

Keyfigures	2007	2008	2009
Total revenue in millions	774	1.437	1.524
Number of employees	3434	5400	5160
Manufacturing Capacity	214 MW	414 MW	574 MW*

* Fab 3 under construction – 1 GW capacity



SunPower - The Trusted Choice for Solar



