



www.trinasolar.com

Trinasolar
Smart Energy Together

Company Profile



Quality.

Trina Solar adheres to international standards of quality, institutes best-in-class quality control processes, and strives to consistently deliver only the highest quality products to our customers.



Reliability.

Trina Solar maintains a strong sense of professionalism and accountability. Across both upstream and downstream operating segments, the company seeks to build strong relationships with partners who share our commitment to advancing the solar PV industry.



Sustainability.

At Trina Solar, we make significant efforts to reduce the waste and pollution created by our manufacturing process. In order to accelerate the transition to clean and reliable energy, we continually work to improve the efficiency and quality of our products, as well as advancing the technology we use.

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About Trina Solar



Introduction

Trina Solar is a global leader in photovoltaic modules, solutions and services. Founded in 1997 and listed on the New York Stock Exchange since 2006, Trina Solar today drives smart energy together with installers, distributors, utilities and developers worldwide. The company is an innovative shaper of the global solar industry, operating both upstream in module supply and downstream in project development. Trina Solar specialises in the development and manufacture of crystalline silicon photovoltaic modules and pioneers smart energy solutions for the future with continued downstream project investments, advanced smart panel technology and the introduction of innovative battery storage solutions. In 2014 Trina Solar became the world's number one PV module manufacturer by volume and once again set multiple world records for cell efficiency and module output. The company's industry-leading position is based on innovation excellence, superior product quality, vertically integrated capabilities, strong partnerships and environmental stewardship.

Trina Solar is actively stepping up its pace of globalization and its development of the senior leadership team. Over the last few years, an international line-up of senior managers and researchers from more than 20 nations and regions have joined the company. Trina Solar has its European headquarters in Zurich, Switzerland, its North American headquarters in San Jose, California, USA, the Asia-Pacific Middle East and Africa Headquarters in Singapore and the company has also inaugurated a new manufacturing facility in Thailand. Today Trina Solar's products are sold in over 30 countries.

Trina Solar is committed to sustainably growing the global solar industry, guided by the mission to Benefit Mankind with Solar Energy, and aligning with the company's core values of Customer Focus, Open Mindedness, Mutual Respect and the Pursuit of Excellence.



Trina founded by Jifan Gao in 1997 1997 - 2005

Trina' in Chinese is defined as technology that creates harmony between people and nature

Trina Solar's Vision
2020: Global Leader in Smart Low Carbon Energy

Trina Solar's Mission
Benefit Mankind with Solar Energy

Trina Solar's Core Values
Customer Focus, Open Mindedness
Respect & Win-win, Pursuit of Excellence

Developed China's first BIPV-integrated structure

Installed 39 PV power stations in Tibet for the China National Brightness Program, bringing electricity to remote regions

Participated in the development of China's first renewable energy law which set a goal of 15% renewable energy by 2020



Leadership Through Innovation 2011 - 2012

Honey Launched Honey Cell Technology with a world record output of 274W in 2011 and 284.7W in 2012

Germany's largest PV power plant (84 MW) located in Eggebek, Germany

Installed Australia's largest rooftop on-grid system (1.22MW) for the University of Queensland

Named by the World Economic Forum as the first industry shaper of the global solar sector

Ranked #18 in the Fortune Fast 100

Became the first PV firm to receive the CTDP certification from UL to independently test for and release UL-recognized data

Ranked #1 globally for environmental and social performance in the Solar Scorecard by SVTC



Trina Solar IPO (TSL) in 2006 2006 - 2010

Achieved complete vertical integration by launching cell manufacturing facility

US's largest rooftop PV installation (2.4 MW) located in Atlantic City

Signed cell supply partnership with Lisa Airplanes

World's largest rooftop PV installation (40MW) located in Antwerp, Belgium

Installed rooftop solar energy systems on the Belgium and EU pavilions at the Shanghai World Expo

Named by Deloitte as the fastest growing company in China's high-tech sector

Recorded second-highest module power output at the Desert Knowledge Australia Solar Center



"The world's number 1" 2013 - 2015

Trina Solar achieves its core strategic goal set in 2010 and becomes one of the world's leading PV module manufacturers and solar power operators

In 2014 alone, Trina Solar sets seven world-records for solar module power output and solar cell efficiency with both multi-crystalline and mono-crystalline solar PV technology

Ranked #1 globally for environmental and social performance in the SVTC Solar Scorecard for the 3rd consecutive year

Ranked #1 globally for module shipments with over 3.66GW shipped in 2014

Awarded BlueSky Award 2014 by United Nations Industrial Development Organization

Continued expansion with new manufacturing facilities set to open in Thailand and Malaysia in 2015



Quality



We put our
modules
through over

36 rigorous
in-house tests

At Trina Solar we strive to deliver only the highest quality products to our customers. Trina Solar adheres to international standards of quality and implements stringent quality control processes, holding our products to the highest standards.

Center For Excellence

Our "Center for Excellence" laboratory includes a broad range of equipment used to conduct quality control tests, product certifications, material reliability checks, and in-depth research. The equipment in the Center is of the same caliber as that used in internationally recognized and independent testing centers. All testing procedures are performed in accordance with UL1703, IEC61215, and IEC61730 standards.

In our Center for Excellence we put our modules through over 36 rigorous in-house tests to ensure reliability and performance. This allows us to confidently stand behind our 25 year and 30 year output warranties.

The Best \$/Kwh

To us, the true value of a panel lies in the electricity it generates over time. Our panels continue to demonstrate superior performance in independent tests across the globe.

Trina Solar represents a sound investment and you can rest assured you'll be getting the best \$/kWh. Many customers find that our panels and systems outperform their official specifications. We call that Quality You Can Count On.

Environmental Reliability Testing

We put our PV modules through extreme environmental testing to ensure reliability and superior performance, even in the world's most unforgiving conditions.

Tests include:

- UV Preconditioning
- Impact
- Corrosive Atmosphere
- Hotspot Endurance
- Insulation (Dry, Wet)
- Thermal Cycling
- Wet Leakage
- Damp Heat
- Mechanical Load
- Highly Accelerated Stress
- Humidity Freeze
- Outdoor Exposure

Component Testing

Trina Solar carefully tests the performance of each module component in order to maximize electrical output whilst minimizing module degradation over time. Tests include:

- Bypass Diode Test
- Materials and Components Testing
- Quality checks throughout
- Micro-crack testing
- NOCT measurement
- Electrical Component testing
- Flash testing





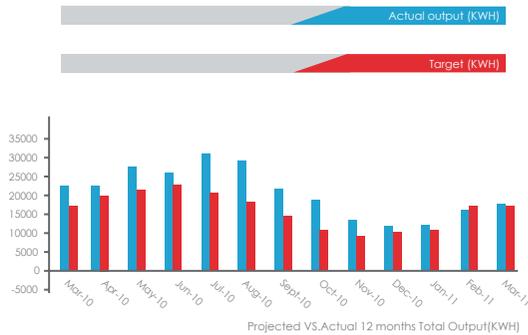
Quality



Product Performance

The quality of a panel relies on its ability to adapt to any environment and resist different types of stress. These characteristics ultimately influence the amount of electricity generated over a panel's lifetime.

Trina Solar's products are tested by internationally recognized laboratories. Outside of the laboratory, our modules continue to prove their high performance. For instance, the actual yield of our modules in an installation in Fustinana, north of Spain, proved to be 22% higher than projected.



Data from OPDE PV plants
Projected data based on JRC source

Customer Service

To provide a comprehensive service to our customers, we offer complete pre- and after-sales services. This covers our products' electrical and mechanical characteristics, packaging, absolute ratings, I-V curves and product dimensions.

We have customer service representatives around the world who are trained to answer all questions about our products. Our local teams of engineers can also provide you with technical assistance for your system. Our regional warehouses across the globe, including Europe and the US, allow us to support customers in a timely and dependable manner.

Resilience

Our modules have received ammonia gas resistance certificates and salt mist certificates from TUV Rheinland and Intertek testing services. Trina Solar's high quality mono- and multi-crystalline PV modules offer exceptional performance and can be installed in almost any climate conditions, including adverse environments with high concentrations of ammonia gas (like farmhouses) or salt mist (like seashores).

Our strong commitment to our customers drives us to continuously improve our products





Reliability

Trina Solar maintains a strong sense of professionalism and accountability. The company seeks to build strong relationships with partners who share a commitment to growing the solar PV industry.



We have achieved
23.15%
conversion
efficiency



PV Park

All research, development and manufacturing of ingots, wafers, cells and modules is conducted at our facilities in Changzhou, China. The site is approximately 5.12 square kilometres in area and it is known as the Trina Solar PV Industrial Park. Our West Campus is a single manufacturing campus and our East Campus, completed in 2011, increases the degree of automation and vertical integration. We also completed our PV Park R&D Laboratory which is a new and larger part of our existing research & development and testing facilities.

This integrated manufacturing model allows us to provide better solar solutions to customers as we have more control over cost, quality, yield, product development and cycle times.

Efficient Technology

In order to offer our customers the greatest possible value, Trina Solar invests heavily in research and development. The company is currently working to improve its cell manufacturing processes which include new, state-of-the-art passivation and metallization techniques. Mono- and multi-crystalline cell conversion efficiencies have already reached 23.15% and 20.8% respectively.

Downstream Project Business

Our rapidly growing downstream business offers dependable design, planning and execution for utilities, residential and commercial distributed generation (DG) projects, as well as operating our solution and services business. With unrivalled competitive strengths and stringent quality controls covering every stage of project development, we have successfully built ground-mounted PV systems in key markets around the world.

Vertical Integration

With the goal of accelerating the adoption of photovoltaics around the world, Trina Solar has developed a vertically integrated business model. This vertical integration not only allows us to offer our customers competitively-priced products, but it also enables us to monitor quality closely at each step of the manufacturing process. All ingots, wafers and cells are tested at each stage of production, and because transport and handling is kept to a minimum, they experience little breakage.

- Lower manufacturing costs and offer competitive pricing
- Reduce logistics costs and waste
- Reduce the amount of breakage loss associated with toll
- Reduce dependence on third party suppliers
- Shorten production cycle and improve value chain coordination
- Reduce reliance on toll manufacturing
- Streamline manufacturing processes and improve product quality

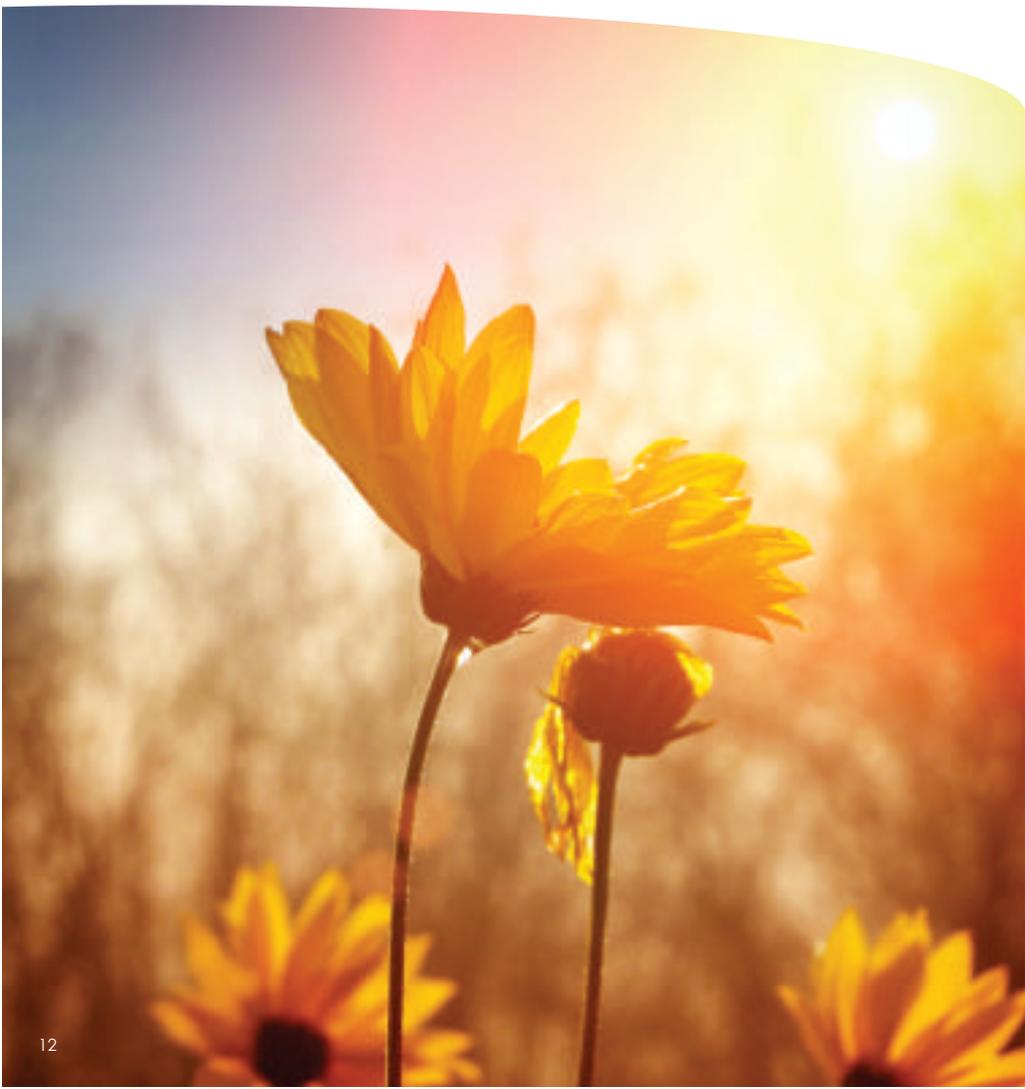
Global Research Partnerships

We believe the road to leadership is paved with strong partnerships. Trina Solar has long-term partnerships with local utilities, distributors, project developers and system integrators in more than 20 countries.

Until recently, Trina Solar has collaborated with Singapore's National Institute for Applied Solar Energy Research, and the Australian National University, with ensuing technologies having been successfully transferred into manufacturing. In pursuit of continuous innovation and higher efficiency, new contracts have been signed with two of Australia's leading research institutes - the Australian National University and the University of New South Wales. This will result in the development of ultra high efficiency IBC cells, new passivation technologies and metallization by plating to replace the need for silver.



At Trina Solar, we are making significant efforts to reduce the waste and pollution created by our manufacturing processes. In order to accelerate the transition to clean, reliable energy, we are continuously working to improve the efficiency and quality of our products, as well as to advance the technology we use.



Ranked **#1**
by the Silicon Valley Toxics Coalition for
social and manufacturing responsibility in
the PV industry

Corporate Social Responsibility

Solar photovoltaics present an affordable, reliable and clean way to generate electricity for off-grid communities and to supplement existing, more expensive electricity production for those on the grid. The industry continues to make great progress, improving efficiencies and reducing costs. As the industry's ability to have a positive impact on the world rises, so too does its responsibility. We believe that Trina Solar can lead the industry, bringing energy independence and empowering individuals and their communities.

In 2014 Trina Solar donated modules to the hybrid power system Sun Star located at the mountaintop of Signal Hill, Cape Town, South Africa, providing energy for local educational activities, movie projection, sports events and exhibitions.

That same year, Trina Solar cooperated with the photovoltaic training center of Warsaw University and Poland National Telecommunications Research Institute, and donated photovoltaic modules to the photovoltaic training center to support Poland with professional staff training on photovoltaic installation and technology.

"Energy buildings" in Switzerland refer to buildings which can produce enough energy not only to sufficiently support their own energy consumption, but also to provide electric power for solar electric cars. In 2012, Trina Solar united with the Switzerland solar energy award to promise to install photovoltaic modules for the canton with the most "energy buildings". In 2014, Trina Solar donated 44.5 kilowatts of photovoltaic modules to Switzerland's Thunersee senior high school. We held the installation opening ceremony on May 26th, fulfilling Trina Solar's 2012 promise to support "energy buildings".

Environmental Responsibility

As a global community, our improving standard of living comes at a cost. We consume greater amounts of electricity every day and the question of how to generate that electricity is critical. If we continue to rely on fossil fuels and emit ever-greater amounts of greenhouse gases, the damage to our environment and ourselves may become irreversible.

We have worked hard to reduce the waste and pollution caused by our manufacturing processes. We have installed anti-pollution equipment at our facilities to reduce, treat, and recycle waste.

In 2010, we obtained the ISO 14001 Environmental Management Standards certification. In 2011, we received the ISO 14064-1:2006 verification statement from the British Standards Institution (BSI), reflecting our dedication to minimizing our manufacturing's harmful effects on the environment, and our efforts to comply with regulatory requirements and continuously improve our environmental performance.

In 2012, 2013 and 2014 Trina Solar was ranked No. 1 globally for environmental and social performance in the Solar Scorecard, an award system established by the SVTC (Silicon Valley Toxics Coalition), covering the assessment areas of extended producer responsibility, occupational health and safety, chemical use, supply chain responsibility and life cycle analysis.

Climate change knows no boundaries. Together we need electricity that is environmentally sustainable, economically feasible and easy to implement on any scale.





Projects



Japan 2 MW

Location: Nishi-Shirakawagu, Fukushima-ken
Completion Date: October 2013
Number of Modules: 8,334
Installation Type: Ground-Mounted PV Plant



South Africa 1 MW

Location: Villiersdorp, Western Cape
Completion Date: October 2013
Number of Modules: 1,876
Installation Type: Commercial Rooftop



Belgium 40 MW

Location: Antwerp
Completion Date: December, 2009
Number of Modules: around 180,000
Installation Type: Commercial Rooftop



China 90 MW

Location: Toksun, Xinjiang Province
Completion Date: October 2014
Number of Modules: 360,000
Installation Type: Ground-Mounted



USA 250 MW

Location: Boulder City, Nevada
Completion Date: April 2015
Number of Modules: 1.1 million
Installation Type: Ground-Mounted PV Plant



China 30 MW

Location: Liangshan, Sichuan
Completion Date: December 2013
Number of Modules: 120,000
Installation Type: Mountainside, Ground-Mounted



UK 1 MW

Location: Reading, Berkshire
Completion Date: January 2015
Number of Modules: 3,772
Installation Type: Commercial Rooftop



Switzerland 73.2 MW

Location: Ticino
Completion Date: June 2014
Number of Modules: 244
Installation Type: Commercial Rooftop



Australia 1.22 MW

Location: Brisbane, Queensland
Completion Date: June 2011
Number of Modules: 5,004
Installation Type: Commercial Rooftop

