Climate Change and Energy Crisis Endanger Human

Hurricane Katrina, cat. 5
Clean Energy is Our New Hope
Solar—Safe and Clean Energy for the future

Antwerp, Belgium – 40MW
World’s Largest Rooftop Installation
21\textsuperscript{st} Century will be the Solar Century

Today < 0.5%
## PV Has Been Scaled Up

2010, China Mainland produced about 50% of PV worldwide. In MW

<table>
<thead>
<tr>
<th>Region</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>10</td>
<td>10</td>
<td>50</td>
<td>200</td>
<td>400</td>
<td>1088.0</td>
<td>2600.0</td>
<td>4011.0</td>
<td>8000.0</td>
</tr>
<tr>
<td>Europe</td>
<td>135</td>
<td>193.35</td>
<td>314</td>
<td>470</td>
<td>657</td>
<td>1062.8</td>
<td>2000.0</td>
<td>1930.0</td>
<td>2000.0</td>
</tr>
<tr>
<td>Japan</td>
<td>251</td>
<td>363.91</td>
<td>602</td>
<td>833</td>
<td>928</td>
<td>920.0</td>
<td>1300.0</td>
<td>1508.0</td>
<td>1700.0</td>
</tr>
<tr>
<td>China (Taiwan)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>450.0</td>
<td>900.0</td>
<td>1300.0</td>
<td>2500.0</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>120</td>
<td>103.2</td>
<td>140</td>
<td>154</td>
<td>202</td>
<td>266.1</td>
<td>432.0</td>
<td>595.0</td>
<td>800.0</td>
</tr>
<tr>
<td>ROW</td>
<td>45</td>
<td>73.8</td>
<td>89</td>
<td>102</td>
<td>314</td>
<td>663.1</td>
<td>668.0</td>
<td>1316.0</td>
<td>1200.0</td>
</tr>
<tr>
<td>Total</td>
<td>561</td>
<td>744.26</td>
<td>1195</td>
<td>1759</td>
<td>2500</td>
<td>4000.0</td>
<td>7900.0</td>
<td>10660.0</td>
<td>16200.0</td>
</tr>
</tbody>
</table>

- **Source:** China NDRC, Q1 2011

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![Graph](image.png)
Global PV Installment Keep Growing

China NDRC
Quality Still Under Challenge
Seeking for Excellence, Seeking for Win-win
Trina Solar Company Snapshot

- Founded in 1997, in Changzhou, China
- $1.86Bn Revenue in 2010
- >17,000 employees worldwide
- Listed on the NYSE (under TSL ticker)
- One integrated manufacturing campus

Our Advantage: Vertically Integrated Business Model

Ingot → Wafer → Cell → Module → System
Fast Growth

Module Shipments, in MW

<table>
<thead>
<tr>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On track to be among the largest PV module suppliers

Growing into an industry leader while maintaining strong financials

1 Source: Navigant Consulting, Solar Outlook 01-2010
International Organization

11 branch locations, 16,000+ employees from about 20 nationalities

San Jose, CA
N. America HQ

Zurich
Europe HQ

Munich
Sales Office

Changzhou, Jiangsu
Sales Office

Beijing
Sales Office

Madrid
Sales & Marketing

Milan
Sales Office

Seoul, S. Korea
Sales Office

Tokyo, Japan
Regional HQ

Shanghai, China
Corporate

Sydney, AUS & NZ office
(In preparation)

Corporate & Regional Headquarters

Regional Sales & Marketing Branches
Support Coping with Climate Change

1997
- Trina Solar Establish
- KYOTO PROTOCOL

2000
- Come up with China 1st Conceptual BIPV
- Bali Climate Change Conference

2006
- Listed on NYSE
- UN Summit for Climate Change
- Climate Change Conference in Bangkok

2010
- China State Key PV S&T Lad approved to set in Trina
- Milestone: annual sales 10 Bil RMB
- Copenhagen COP15
- Cancun COP16
- Durban COP17

2011
- WEF 1st Shaper for Solar Globally
Model of Green Growth

GreenTech Media 2010 ranking based on quality, capacity and technology

First Solar (FSLR U.S.)
Trina Solar (NYSE: TSL) (China)
Yingli Green Energy (NYSE: YGE) (China)
Suntech Power (NYSE: STP) (China)
REC (REC.OL) (Norway)
Astronergy (China)
Solibro GmbH (Germany)
LDK Solar (NYSE: LDK) (China)
SunPower (Nasdaq: SPWRA) (U.S.)
Solar Frontier (5002.T)(Japan)
Sharp (SHCAY.PK) (6753.T in Japan)
Canadian Solar (Nasdaq: CSIQ) (China)
EGing Photovoltaic Technology (China)
Abound Solar (U.S.)
Solarfun (Nasdaq: SOLF) (China)
### World-Class Environment, Health, Safety

Solar Scorecard 2011, world ranking for PV manufacturer’s toxics coalition

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>OVERALL SCORE</th>
<th>RECYCLING</th>
<th>GREEN JOBS</th>
<th>TOXICS</th>
<th>DISCLOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SolarWorld</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trina Solar</td>
<td>89</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REC</td>
<td>87</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Solar</td>
<td>87</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SunPower</td>
<td>85</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yingli Solar</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**The Key for Overall Score**

- **Sunny**: This company is an industry leader and is on the right track toward ensuring that solar PV is green and clean.
- **Partly Sunny**: This company has taken some big steps toward creating a clean PV industry but does not address all of the issues effectively.
- **Cloudy**: This company responded to the survey but has not taken the necessary steps toward creating a clean PV industry.
- **Rainy**: This company did not respond to our survey and is not transparent; it’s not clear if they are committed to sustainability and social justice.

*Sharp and Suntech contacted SVTC and worked to have a constructive dialogue, but did not complete the survey.*

(1) Solar scorecard 2011
# Sustainability Leader

PRTM 2011 ranking based on sales growth, brand, market share, profitability, marcap and financing status

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Score</th>
<th>Score change 2010 to 2011</th>
<th>2011 Rank</th>
<th>Rank change 2010 to 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trina Solar Limited</td>
<td>CN</td>
<td>51.5</td>
<td>-10.5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>First Solar, Inc.</td>
<td>US</td>
<td>63.5</td>
<td>48.5</td>
<td>2</td>
<td>-1</td>
</tr>
<tr>
<td>LDK Solar Co. Ltd.</td>
<td>CN</td>
<td>63.5</td>
<td>N/A</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>Renesola Ltd.</td>
<td>CN</td>
<td>63.5</td>
<td>-109.5</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>JA Solar Holdings Co., Ltd.</td>
<td>CN</td>
<td>65.0</td>
<td>-53.5</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Yingli Green Energy Holding Co., Ltd.</td>
<td>CN</td>
<td>80.5</td>
<td>-7.0</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Gintech Energy Corporation</td>
<td>TW</td>
<td>90.0</td>
<td>-23.5</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Motech Industries, Inc.</td>
<td>TW</td>
<td>91.0</td>
<td>-37.5</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Renewable Energy Corporation ASA</td>
<td>NO</td>
<td>94.5</td>
<td>26.5</td>
<td>9</td>
<td>-4</td>
</tr>
<tr>
<td>JinkoSolar Holding Co., Ltd.</td>
<td>CN</td>
<td>104.0</td>
<td>N/A</td>
<td>10</td>
<td>N/A</td>
</tr>
<tr>
<td>Neo Solar Power Corp.</td>
<td>TW</td>
<td>106.5</td>
<td>N/A</td>
<td>11</td>
<td>N/A</td>
</tr>
<tr>
<td>Suntech Power Holdings Co., Ltd.</td>
<td>CN</td>
<td>109.0</td>
<td>43.5</td>
<td>12</td>
<td>-9</td>
</tr>
<tr>
<td>Hanwha SolarOne, Ltd.</td>
<td>CN</td>
<td>121.0</td>
<td>11.0</td>
<td>13</td>
<td>-2</td>
</tr>
<tr>
<td>SunPower Corporation</td>
<td>US</td>
<td>124.5</td>
<td>57.0</td>
<td>14</td>
<td>-10</td>
</tr>
<tr>
<td>Canadian Solar Inc.</td>
<td>CN</td>
<td>125.5</td>
<td>26.5</td>
<td>15</td>
<td>-5</td>
</tr>
</tbody>
</table>
Innovation Championing China PV Industry

China Listed PV Companies

- Trina Solar
- Company B
- Company C
- Company D
- Company E
- Company F
- Company G
- Company H
- Company I
- Company J
- Company K
- Company L
- Company M
- Company N
- Company O

Up to March 7 2011, China IP Bureau
Innovation Progress

Pmax=211W
Cell Eff%: 18.80%;
Module eff: 16.56%

Pmax=257.2W
Cell Eff%: 17.60%;
Module eff: 15.70%
In-house Blended (Mono & Multi) Cost per Watt (US$/W)
China State Key PV Science & Technology Lab @ Trina

Director: Shen Hui
Deputy Director: Dr. Huang Qiang from Trina
Chu Junhao, Academician from Shanghai Institute of Technical Physics
You Xiaozeng, Academician from Nanjing University
Wang Zhonglin, Academician from UGA
Yang Deren, professor from Zhejiang University
Ji Liangjun, researcher from UL, USA
Bett, deputy director from ISE Fraunhofer, Germany
Zhang Yong, professor from UNC
Arnulf, researcher from JRC, Europe
Liu Zhengxin, researcher from AIST, Japan
Dr. Feng Zhiqiang, from Trina
Dr. Zhang Zhen, from Trina

Committee members: Top Experts in PV industry
Collaboration to Bring Solar to Mainstream

70 Researchers: 10 PhDs from ISFH (DE), ANU(AU), NUS(SG), YNU(JPN), CAS(CN), …

Member of academic committee from JRC (EU), AIST(JPN), Georgia Tech(US), CAS(CN), ISE (DE)…

Partners: SERIS (SG), MIT (US), CAS(CN)…
Collaboration to Bring Solar to Mainstream

Partnership with SERIS

Contract Research Agreement has been signed between Trina Solar and Solar Energy Research Institute of Singapore (SERIS) to develop super efficiency (21.5%-23.5%) silicon back-contacts solar cell.
Partnership with IEC/TC 82 with a Great Start

IEC/TC82 Annual Conference in China

- Trina Solar starts to contribute to IEC/TC 82
- 2 Standards raised by Trina Solar representing China PV manufacturers
- Both believe that the collaboration need to be reinforced
- Trina Solar is willing to contribute more
Quality Assurance System

Forming Strategic Cooperation Partnerships with TUV, UL and CGC

Trina solar CENTER FOR EXCELLENCE

- Over **30 in-house tests**, allows internal testing in accordance with IEC standards and those of internationally-trusted testing bodies

- **Long-term Strategic Partnership with** TUV Rheinland Group, Underwriters Laboratories Inc (UL) and China General Certification Centre (CGC).

- Material & Electrical testing to **increase panel durability** and **prolong product lifetime**

- Allows Trina Solar to confidently offer customers our customers **product and manufacturing warranties**
Monocrystalline Modules Ranked 2nd in the TUV Specific Energy Yield Report

Note: TUV Rheinland testing period from Sep 1 to 30, 2008. Performance measured as actual output relative to theoretical output.
17 modules from 14 brands tested.
Test Results in Australian Deserts

Even in the desolate deserts in summer Australia, Trina Solar’s modules shine with its superior quality.

Average daily power output from January to December 2009 (Unit: kWh/kWp)

<table>
<thead>
<tr>
<th></th>
<th>BP Poly</th>
<th>BP Mono</th>
<th>Sunpower</th>
<th>Kyocera</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>4.69</td>
<td>4.86</td>
<td>5.07</td>
<td>5.16</td>
</tr>
</tbody>
</table>

You get more with Trina modules

- BP Mono: +8.0%
- SPWR: +4.7%
- BP Poly: +4.5%
- Kyocera: -1.3%

Quality Recognition: 2009
Quality Recognition: 2010

Results of the Photon solar module yield measurement results (Jan to Nov 2010 in kWh/kWp)

Trina Solar panels are among the world’s top performers.

Source: Photon International January 2011


**Projektverlauf:**

- **22.07.2009:** Vorstellung der Idee "Energiepark Dürbheim" im Gemeinderat
- **28.09.2009:** Gemeinderat stimmt Abschluss des Pachtvertrags mit der Energiepark Dürbheim GmbH zu
- **20.11.2009:** Pachtvertrag zwischen der Gemeinde Dürbheim und der Energiepark Dürbheim GmbH wird unterzeichnet
- **November 2009:** Beginn der Arbeiten auf dem Gelände
- **01.06.2010:** Erste Stromspiegler aus dem 1. Teil der Fertigstellung der installierten Leistung von 5 Megawatt
- **31.10.2010:**

**Stahl** 300 Tonnen entsprechend 95 Kilometer Stahlprofile

**Kabel** 196 Kilometer

**Schalter** 15.000 Tonnen

**Solarmodule** 22.360 Stück

**Modulfische** 3.523 Stück

**Installierte Leistung** 5 Megawatt

**Energieproduktion** 5.550 MWh/Jahr

**CO2-Einsparung** 3.000 Tonnen

"*Quelle: Innenenergie Umweltwirtschaft, Bayerisches Landesamt für Umwelt"
Industrial Leading Warranty

Description

**Polycrystalline Products:**
2.5% in the first year, thereafter 0.7% per year, ending with 80.7% in the 25th year after the Warranty Start Date

**Monocrystalline Products:**
3.5% in the first year, thereafter 0.68% per year, ending with 80.18% in the 25th year after the Warranty Start Date.

- 10 years product warranty
- 25 years linear power warranty
- Positive power tolerance +3%

Trina Solar’s **NEW** linear performance warranty

Additional value from Trina Solar’s linear warranty

Guaranteed Power

- 100%
- 90%
- 80%
- 70%

Years

0 5 10 15 20 25

10 year product warranty
25 year linear power warranty
Joint Our Efforts in Fighting Against Fakeries
Trina PV Park
—Joint Quality Management Cross Supply Chain

- Crucible, graphite, slicing wire, sawing, squaring, slurry recycle, silicon carbide, special gases, silicon nitride, cutting fluid, etc.

- Photovoltaic glass, back sheet, compound of EVA and posterior segments, junction box, stringer, testing instruments, inverter, guide rollers, aluminum frame, silver paste, aluminum paste, silicon glue, soldering ribbon, equipment spare parts etc.

- Centralized photovoltaic power generation systems; building integrated components, solar lights and other solar energy application products.

<-------------------------------Testing & Certification, R&D------------------------------->
To attract 60-100 companies along the value chain, to jointly build up a 100 billion level industrial cluster and a world renown Integrated Solar Model Town in 2015.

- World top R&D platform based on State Key PV Lab
- World top testing and certification platform based on the Trina Center for Excellence
- International Trading and Exchange platform based on an international exposition center
- World leading PV education center with the contribution of world top universities and research institutions
Green Growth, Our Target

ISO 14064

- ISO14064: CO2 emissions auditing (GHG) (2011)

To kick off the Trina Solar Low Carbon Development Campaign

PAS 2050

- Product Carbon Footprint (through life cycle)

PAS 2060

- Carbon neutral international standards

Carbon Trading

- Participation into the global carbon trade

Dow Jones Sustainability Index (2015)
Solar Industry Shaper of Davos WEF

**Trina Solar** as the world’s first Global Growth Company (GGC) Industry Shaper in the solar sector
What We Have been Committed to

To Benefit Human Future with Clean Solar Energy through Collaboration!

1 hour sun ~ 1 year energy
IEC/TC 82 is The Right Platform to Promote PV Sustainability
Collaborate to Bring Solar to Mainstream in 2020

2020: Grid parity in many regions

Today < 0.5%