



Media release

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Sarasin forecasts a sunny outlook for China's solar power industry

China will substantially power ahead of the projected average growth rate of the global photovoltaics (PV) industry, according to Bank Sarasin's latest research report, "Solar industry 2009 – The first green shoots of recovery". Sarasin predicts China's installation of PVs will exceed 130% against a global average annual growth rate of 46% between 2008 and 2012 as the global PV market benefits from cost savings, lower module prices, improved efficiency, and expanded marketing channels. India and the USA are both forecast to grow by 100% annually.

In its 10th annual solar industry report, Sarasin forecasts that, in the next two years, at least 10 new PV markets with an annual installed capacity of at least 500 megawatts (MW) will emerge, creating a broad foundation for stable growth and considerable opportunities for producers. As a result, solar energy should manage to wean itself from state subsidies and move rapidly towards grid parity (the point at which renewable energy is equal to or cheaper than grid power).

Sarasin also notes that Chinese PV producers have the lowest cost structure, based on wage bills, silicon prices, energy prices, and credit terms, allowing them to dominate global pricing. In 2008, global solar cell production increased 85% to 7.8 gigawatts (GW), with China, the largest producer, accounting for 33%. Of the top 10 solar cell producers, China, doubling production in just one year, remained in first place with 2.56 GW. It was followed by Germany (market share of 19%), Japan (market share down by six percentage points to 16%), Taiwan (12%), the US, and Spain. Malaysia joined the top ten in eighth place, and could grow further, with First Solar and Q Cells planning to expand production there. Norway and France are in ninth and tenth places, respectively. China is expected to continue dominating global solar cell production, with 95% of its production exported.

China's solar growth flares

"We expect that all three solar power technologies will contribute to meeting the booming energy demand in Asia, particularly in China. Companies that will benefit from China's development as a consumer market are Suntech Power, First Solar, Yingli Solar, and Trina Solar." Matthias Fawer, Sustainability Research analyst and author of the report

By comparison, just 5% of the solar water heating systems produced in China are exported. Driven by domestic demand, production capacity has increased 25% in just two years. China's solar collector areas expanded even more dramatically, up 40% in 2008, accounting for 78% of newly installed solar collector capacity globally. In 2008, China accounted for an estimated total production volume of 28 million square metres in 2008, roughly 6.5 times greater than Europe's.

With the Chinese government announcing a feed-in tariff of CNY 1.2/kWh for ground-mounted solar PV systems, and plans to provide subsidies for 500 MW of solar PV projects, with subsidies one-third larger than originally stated, growth is expected to remain vigorous. China's Ministry of Finance has identified 294 such projects, estimated at 20 billion yuan, to be completed in the next two to three years. PV installations are therefore forecast to grow from 50 MW in 2008 to 1500 MW in 2012, an average annual growth rate of 132%.

Investment Implications

In the past, demand has generally been dependent on booming individual markets such as Japan, Spain and Germany. But by 2011 at least 10 new PV markets with an annual volume of more than 500 MW should emerge. Together with the pioneer markets, this will create a much-needed broad and regionally diversified foundation for stable future growth.

- The first companies to benefit from a general upswing in the PV market will be equipment manufacturers such as Centrotherm Photovoltaics (headquartered in Germany), Meyer-Burger (Switzerland) and inverter producer such as SMA Solar (Germany).
- Benefiting from China's development as an end-consumer market will be Suntech Power (headquartered in China), First Solar (US), Yingli solar (China) and Trina Solar (China).

Outlook still bright for 2010

The solar energy industry has definitely felt the impact of the global financial crisis. The global market for solar power is expected to record zero growth in 2009. But there are signs of an imminent recovery. This is confirmed by the latest Sustainability Research report from Bank Sarasin, published under the title "Solar industry 2009: the first green shoots of recovery".

In the **photovoltaics (PV) industry** the most important factors driving the recovery are cost savings, lower module prices, efficiency improvements and the expansion of marketing channels. The growth rate for the global PV market is already expected to reach 46% in 2010. This corresponds to newly installed PV capacity of 8.5 GW. Annual growth rates for the period up to 2012 are between 45 and 50%. Non-European markets are expected to achieve higher than average growth: China above 130%, and India and the USA both in the region of 100% p.a. Europe's growth over the same period should be around 14%. One guarantee for stable growth is the fact that in addition to the pioneer markets, at least ten new PV markets with an annual volume of 500 MW will emerge in the next two years. This will help solar energy wean itself off state subsidy programmes and at the same time soon achieve grid parity. Based on economic arguments and the associated favourable prospects for the PV industry, Bank Sarasin predicts that the global market volume will expand to 155 GW by 2020. Its long-term forecast is therefore slightly more optimistic than the politically-driven scenario put forward by the EPIA (European PV Industry Association). This projection is not based on the prospect of greater political support, but is founded on the growing economic arguments in favour of solar energy.

Concentrating solar power (CSP) plants are also receiving a boost from the implementation of large-scale projects, such as Desertec in the Sahara. In addition, the expansion of decentralised solar energy generation in Central Europe continues, along with standalone PV systems in southern climes.

Of all the solar technologies, **solar collectors** have made the biggest energy contribution in recent years. The off-grid use of solar heating systems is particularly important in connection with the expected agreement on climate change in Copenhagen.

Glossary:

Photovoltaics (PV)

PV is the generation of electricity from solar energy. In solar cells, which are mostly made from silicon, the impact of a light beam releases a positive and negative charge (photoelectric effect) producing an electrical current that can be used to charge a battery or can be fed into the public mains grid.

Solar collectors

A solar thermal system, or solar heating plant, uses the sun's energy in a relatively simple but highly efficient way. Black coated absorbers in the solar collectors are heated up by the sun's rays. This heat is collected in a storage medium and then fed into the household boiler and heating system.

Concentrating solar power (CSP)

CSP plants utilise the heat converted from the sun's radiation to generate electricity. Mirrors are used to concentrate the sunlight, and the resulting thermal energy is transferred to a steam cycle at temperatures well above 100° C. As with conventional power stations, the steam is put to use in a turbine to generate electricity.

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Copies of the full report “Solar industry 2009 – The first green shoots of recovery” are available in German or English, please contact:

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