Second wave of major new Chinese module manufacturers coming in 2009

Current financial crisis could speed up consolidation in PV industry

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The global solar energy market in 2008 is expected to grow by 50% compared to 2007. The Chinese solar PV industry is growing rapidly and will soon be the biggest producer of solar cells and modules in the world. There are now over 100 Chinese solar module manufacturers, and even more new market players are expected in the short term. The question is: what might the current credit crisis and pessimistic economic forecasts mean for the PV market and industry in 2009? With solar modules becoming a commodity product, China will definitely be playing a key role as a major producer of solar cells and modules. However, if we look at the maturity of the PV industry right now, and what has happened in other industries, an imminent consolidation phase seems likely. That could mean that fewer producers, and only the bigger ones among them, will survive. So which companies are likely to be the winners, and be reliable business partners for the long term?

**Global PV market developments**

The PV market is likely to grow less rapidly in 2009. First of all, the world's biggest market in 2008 – Spain – has reduced its support for solar energy. Feed-in tariffs will be cut by 30% in 2009 and, even more significantly, only 500 MWp of new installed PV power will be eligible for this feed-in tariff. This could lead to a decrease in volume for the Spanish market of more than 60%. With feed-in tariffs going down by around 10% in the German PV market, which was the world's biggest PV market for many years, it is likely to grow, but at a moderate rate. Growth in other markets is also dependent on government support programs. And although the US government recently agreed on an eight-year extension of the federal tax credit scheme for solar energy, the US market is not likely to grow very rapidly. The current credit crisis, and the economic recession forecasted for 2009, will limit the available finance from banks, and therefore also limit the development of new PV projects.

On the supply side, along with the global PV industry as a whole, supply will grow even faster than market demand in 2009. A conservative forecast by the Prometheus Institute suggests that solar module production volume will grow by a massive 80% in 2009. Most of the investments in new production capacity were planned between late 2007 and 2008, under the highly profitable market conditions.

**Consolidation phase**

Last September, SolarPlaza held the second Global PV Demand Conference in Valencia, Spain. The conclusion was that the huge growth in solar module production over the next two years, compared with the ‘modest’ growth in demand, would lead to an oversupply situation commencing in 2009. The experts in attendance predicted that this would create a consolidation phase in the PV industry. This conclusion was drawn even before the international credit crisis began. The difficulty in obtaining finance for new solar energy systems is now visible in the European PV markets. Even worse is the situation in the USA.
Not only is the credit market frozen, the country is also facing economic recession in 2009 and possibly even 2010. Under these conditions, with the oil price falling and with no bank to finance PV system investments, customers might think twice about spending their savings on solar energy. Therefore, the credit and economic crisis may prevent rapid growth in both the US and the global PV markets. Together with the inevitable oversupply situation already predicted for 2009, the solar PV industry could be facing very hard times over the next two years. For the longer term, market forecasts are extremely positive. Industry consolidation will bring module prices down further. And, within a few years, one solar kilowatt hour will equal the price of electricity from the grid (‘grid parity’) in the world's sunny regions. This will unleash unlimited market potential.

As a result, for the short term, financially weaker solar cell and module manufacturers, and those without a foothold in the world's key PV markets, will be put out of business or driven into the hands of some larger partner. In other words, the global economic crisis will speed up the consolidation phase in the PV industry.

Who will be the winners?
The world's leading manufacturers in the solar industry are well placed for continued growth in 2009. The top 10 of the world's biggest solar module manufacturers includes several Chinese companies, like Suntech Power, Yingli Solar and Trina Solar. These companies started up during the first wave of new Chinese PV industries a few years ago, and all three of them are listed on the New York Stock Exchange. They have grown rapidly and made healthy profits in 2007 and 2008. Their track record will help them to remain on the shortlist of banks financing PV projects. Their full order books will help them through a more difficult market phase in 2009. However, there are dozens of other manufacturers out there on the market. Many of them are relatively small, or just started trading in 2007, following the hype to produce solar modules. Back in 2007, the market became very hungry for modules. The availability of modules counted for more than the brand name. Now European and US banks are hesitant to provide PV project finance. A manufacturer needs to be highly bankable, or at least will need to offer sufficient financial guarantees, before any shipments can take place. If a company fails, all its modules will need to be returned, or the investor repaid. Only the bigger, financially sound companies will be able to fulfill these requirements. The first signs from China are that several smaller manufacturers are stopping production or actively looking for a takeover.

Companies and (big) manufacturers with healthy balance sheets and full order books will be in a good position to survive a difficult 2009.

The second wave
Nevertheless, it could turn out that the future winners among the manufacturers will be relatively unknown players: companies that have just started producing solar wafers, cells and modules, that have a strong vision, a conviction that the solar energy market will continue to grow in the long term, and deep pockets to see them through a difficult start-up phase under the current economic conditions.

Some major production initiatives by industrial companies or conglomerates with a variety of backgrounds have been announced or are underway – from a glass manufacturer (CSG), to an industrial glove manufacturer (QS solar), to an energy utility (ENN), to a manufacturer of electronic devices (Chint). Their balance sheets will easily be more robust than those of the better-known existing European module manufacturers. The benefit for European and US companies is that the Chinese companies will still need to
develop their sales and distribution network structures in key markets. They are keen to do business directly with bigger end customers like PV project developers. And they are willing to offer financial security packages to overcome the doubts of banks and customers. Developers in Europe might ask themselves why they should pay €0.30/Wp more for a well-known European module brand if the Chinese manufacturer is offering a full financial security package and is backed by a hundredmillion or more dollar parent company with thousands of employees.

It is difficult to give prices for their modules, since currencies are so volatile, but recently prices have been offered of between $3.60 and $3.75/Wp for deliveries of crystalline modules up to the end of 2008.

Several of these major new Chinese players have moved into thin film. In 2009 alone, total installed capacity could exceed 1.5 GW, then rapidly expand to double that figure one year later. This new wave of solar modules will start coming onto the market in early 2009, when the products will have their full IEC/UL certification. Prices will depend on the state of the dollar, but offers have been seen of $2.50/Wp.

These major new players may very well be among the manufacturers that survive the imminent consolidation phase. They can take a little head wind and prepare themselves for rapid market growth in the long term, when it will be full steam ahead once more.

**PV trade mission to China**
In order to explore business opportunities with this second wave of PV module manufacturers, SolarPlaza is organizing a dedicated international PV trade mission to China. During the week-long program (from 24 to 28 November 2008), we will be visiting or meeting at least 10 reliable high-quality crystalline and thin-film module manufacturers as part of a one-day conference included in the program (see: [www.pvtourchina.com](http://www.pvtourchina.com)).

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