China’s PV industry in times of crisis

The global economy is in turmoil, and China’s PV industry has not remained unaffected. What effects will the economic crisis have on this booming, but still fledgling sector? Many PV companies still remain optimistic – mainly because of the US market.

From 2005 to 2007, photovoltaics skyrocketed. The main growth started in Germany, with Spain coming to the forefront later. For the first time ever, photovoltaics was profitable enough to allow for strategic investments, especially in greater production depth. But at the beginning of 2007, the industry rubbed its eyes in disbelief when German supporters of photovoltaics called for feed-in tariffs for solar power to be reduced. Critics, who mainly consider the solar sector a subsidy recipient, were naturally pleased. The sector itself wondered: “With friends like that, who needs enemies?”

In 2008, rates paid for solar were reduced in both Spain and Germany. Eurosolar President Hermann Scheer commented, “Reasonable discussions are hardly possible when laws are doctored up as a knee-jerk reaction, which only creates greater uncertainty.”

There are two crises

The uncertainty that Scheer spoke of promptly made itself felt in autumn of 2008. Up to then, demand had been strong, but it suddenly plummeted. At present, supply clearly outstrips demand after many years of the opposite. Prices – and hence manufacturers and their employees – have come under considerable pressure. The global economic and financial crisis further worsens the already difficult situation, especially for manufacturers that chiefly export. After all, business gets tough for PV firms if credit and investments are hard to come by. We will probably not know how serious the problems are until the summer, when most new systems are generally installed.
Wafer production at Yingli, who currently is one of the largest manufacturers of PV products in China

In this context, S&WE conducted a census of opinion of an unrepresentative sample of Chinese PV firms. One important question was whether the firms believe the future of their market is in the US, within China, or in the EU. The responses leave no doubt that the US market is considered the most important one. Furthermore, Chinese cell and module manufacturers clearly favour the US market, which has long been growing gradually but is now picking up speed. Not surprisingly, most of those queried could also put a name on their hopes: the new President Barack Obama. Interestingly, Obamania never really took off in China; nonetheless, the PV sector understands that the brakes may soon be taken off the US market now that certain people who had their foot on them are gone.

On the US market, Chinese firms will directly compete with European manufacturers who have to look for new markets. China has traditionally had excellent relations to the US. The protectionist intentions that the new administration announced and Obama later relativized do not bother the Chinese. In the interviews, they felt that the US market was the most promising and safest. It should be added, however, that the Chinese also thought the US market was the most attractive in similar surveys from 2007 and 2008. Looking back, the revenue generated did not seem to warrant these high expectations and hopes. Indeed, there seems to have been a surplus of small panels for off-grid applications. If we take a look at the last Solar Power conference in San Diego and the number of Chinese exhibitors there are in comparison to similar events in previous years, one could optimistically say that the market is shifting – or already has – to the benefit of the Chinese. This issue will certainly be discussed at the next Intersolar.

Naturally, S&WE also asked the Chinese to assess opportunities on their domestic market. Not surprisingly, the answer was almost always the same: the Chinese market has the greatest potential, and it will boom someday. But as long as China does not have proper support, such as a feed-in tariff, the market will not go anywhere. The firms feel that there is simply not enough purchasing power in China or that prices are too high.
Admittedly, China still lacks a proper feed-in system that is suited to its own conditions and works as desired. Nonetheless, China’s domestic wind and solar thermal sectors seem to be doing quite well indeed. The decisive factor is that the price per kilowatt-hour of photovoltaics is still much too high compared to wind power and solar thermal.

**Shrinking or growing**

Almost all of the interviewed companies said they are sticking to their growth targets for 2009 although the economic crisis will affect their companies. It remains to be seen, however, how these targets will be reached. The saddest fact is that numerous firms are cutting jobs, and many will have to close. For instance, Suntech Power (Wuxi) laid off a total of 800 people at the end of 2008 and canceled plans to hire an additional 2,000. Suntech Power has a total of 9,000 employees.

Contrary to the census of opinion, very pessimistic analyses estimated that the market would shrink by as much as 70 percent by the end of 2008. The figures should be taken with a grain of salt, however, as this estimate is based on a survey conducted just before the Chinese New Year, which a lot of companies celebrated at length to compensate for underutilization of capacity. We will not have more reliable figures on the potential downturn until after this issue is published.

But if you have been keeping an eye on China’s Renewable Energy Ticker, you may have the impression that the Chinese PV sector is in a rally. Here are some recent press releases: On January 30th Trina Solar signed a sales agreement with GA Solar. Two days before Suntech and Standard Solar reached a 5 MW solar panel supply agreement. On January 27th ReneSola secured funding for Sichuan facility. Before the Chinese New Year, Jiangyin Alcom Solar Equipment Co., Ltd signed a strategic investment agreement with Jiangsu High-Tech Investment Group (Govto) to maintain its leading position. On January 20th ReneSola announced a wafer supply agreement with BP Solar. LDK Solar started a polysilicon project on January 19th. On January 14th Canadian Solar (Suzhou) said it would invest 220.28 million Yuan (€ 25.6 million) in R&D. On January 13th ET Solar announced a 13 MW agreement with a large German PV product integrator for 2009. A week before, JA Solar signed a 60 MW solar cell supply contract with Solar Power. And on January 5th Yingli Green Energy signed a 15 MW sales contract with Goldbeck Solar.

**Support from the government**

On the surface, the economic crisis will have the same effect in China as it does elsewhere. Production drops, unemployment increases, and financing is hard to come by. Unemployment is one of the most important problems that the government will have to face. The last thing that rulers in China need in the current situation is greater social tension, much less unrest. The government’s official stated aim is to...
Brighten Up Your Future

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The Chinese industry.

The prices for PV systems have come under pressure. This circumstance affects the Chinese industry.

### PV system price in US and EU

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<th></th>
<th>US: US$/W</th>
<th>EU: €/W</th>
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<tr>
<td>Jan 08</td>
<td>4.83</td>
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<td>Feb 08</td>
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Source: Solar Buzz

PV, wind, and solar thermal are well positioned to get a piece of the pie, provided that the specific company is in good shape. It is therefore not surprising that the companies surveyed want to have, expect to get, or have already received such government support. Back in mid-2008, China’s National Development and Reform Commission (NDRC) reported that climate goals would not change no matter how severe the crisis became. On the contrary, China said it would even be ramping up funding for renewables. Obviously, the government is doing so with an eye to consolidating the PV sector. While consolidation would have come anyway, now the government can directly steer it. Sooner or later, a lot of small PV companies in China can expect to be gobbled up by large, vertically integrated firms. The government’s ideal in the process is to have takeovers include the labour force.

**What does the future hold?**

One salient feature in this survey of Chinese companies was the way they saw the crisis as an opportunity, as the following statements show: “This crisis will prove that our strategy was the right one”; “We need consolidation fast, and the crisis is going to give it to us”; “Renewables are becoming increasingly interesting for investors – it is the industry of the future”; and “The financial crisis is a good opportunity for development.” More prudent opinions were less common, but also not rare, such as this one: “The crisis will not have any real influence, though it will slow down the development of renewables.”

Of course, any forecast for 2009 would be risky. Too many parameters remain to be determined before reliable statements can be made about trend indicators. Indeed, we do not even know whether the crisis itself is already over or whether other banks will also collapse. It is therefore all the more important that the US and the EU continue to send out (or begin to send out) positive signals in energy policy. The claim is hardly fanciful that the Chinese market will continue to grow faster and faster as long as more modules can be sold worldwide. After all, only a mass market can reduce prices to the level crucial for the success of the Chinese market.

If we add up all the other reasons why China should have a strong PV sector – governmental support, industry consolidation, the growth of new markets, greater energy scarcity in the foreseeable future, growing environmental awareness within Chinese society, and the tenacious optimism and pragmatism of the Chinese – then China’s PV sector has a bright future indeed to look forward to.

*Sven Tetzlaff*
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Best SOLAR Co., Ltd is one of the world’s largest solar panel solution providers for both thin film and crystalline solar modules. Our company has two sites located in Suzhou and Nanchang China, which are designed to produce at a total capacity of 1GW of thin film solar panels as well as 3GW of crystalline solar panels in phases.

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