Snapshot of spot market for PV modules – quarterly report Q3 2009

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This paper first appeared in the sixth print edition of *Photovoltaics International* journal.

ABSTRACT

Solar enterprises will each be faced with the occasional surplus or lack of solar modules in their lifetimes. In these instances, it is useful to adjust these stock levels at short notice, thus creating a spot market. Spot markets serve the short-term trade of different products, where the seller is able to permanently or temporarily offset surplus, while buyers are able to access attractive offers on surplus stocks and supplement existing supply arrangements as a last resort.

Still falling

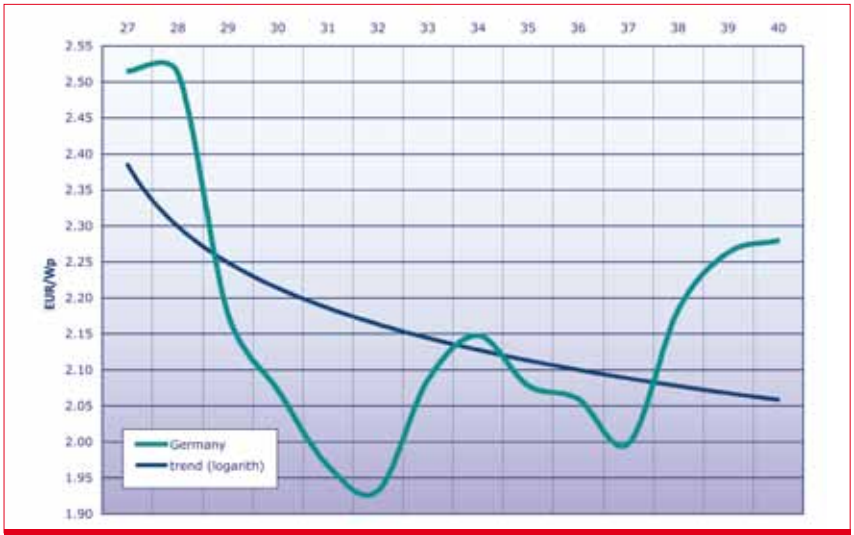
How long will this last? This is the big question on everyone's minds as the industry watched the unrelenting collapse of the price of solar modules in the third quarter of this year. For all technologies and regions, prices have fallen further since the first and second quarters of 2009. The watt-peak prices of many module types have now been almost cut in half since the summer of 2008. Although this decline still seems endless, some raw materials, such as solar silicon and certainly aluminium, are becoming more expensive. The glass industry says that solar glass prices have at times dropped below production costs. All options for cost reduction in the photovoltaics industry seem to have been exhausted.

In September 2009, more than 6.5MWp of PV modules were sold on pvXchange. This corresponds to a sharp increase in comparison to the previous month, which is less surprising as low trade volumes in summer are a common phenomenon on the spot market. Continuously strong demand in the German market has been the driver for such development. For the fourth quarter of 2009, pvXchange expects an ongoing strong increase in sales as a further growth of the whole industry is expected.

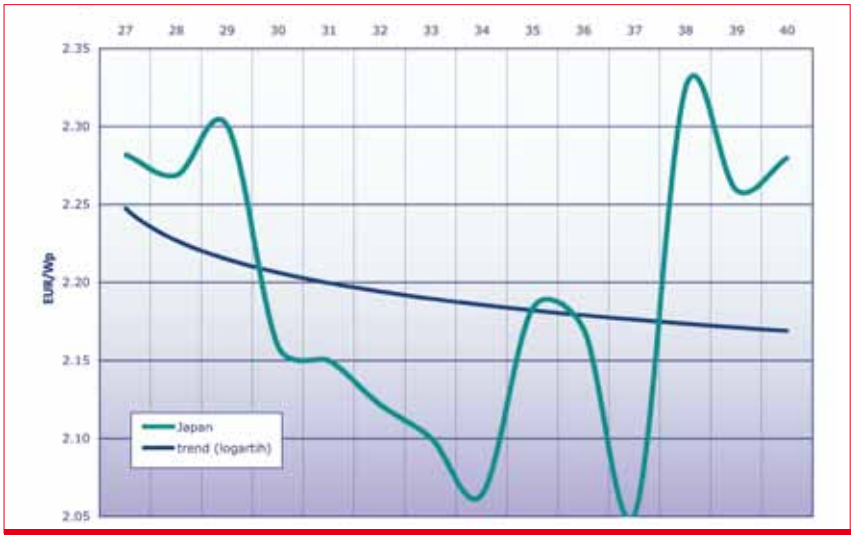
Over the past few months, the most traded technology was the CdTe thin film of First Solar, boasting a high market share on the spot market. This share is the result of high demand from companies seeking efficient modules for their projects in Germany. The good performance of CdTe modules, especially the good weak light performance for systems with a capacity of ≥ 10kW, is one reason for this dominant share on the market. In addition, a high demand for high-performance polycrystalline modules (200Wp and more) is also of note, as these modules are the most efficient solution for rooftop installations. The trend toward larger plants is not only in southern Europe or the U.S. At the start of this year, the average photovoltaic plant in Germany was 8.7kWp; late summer saw growth to over 21kWp – and this figure is rising.

Increasing price trend starts

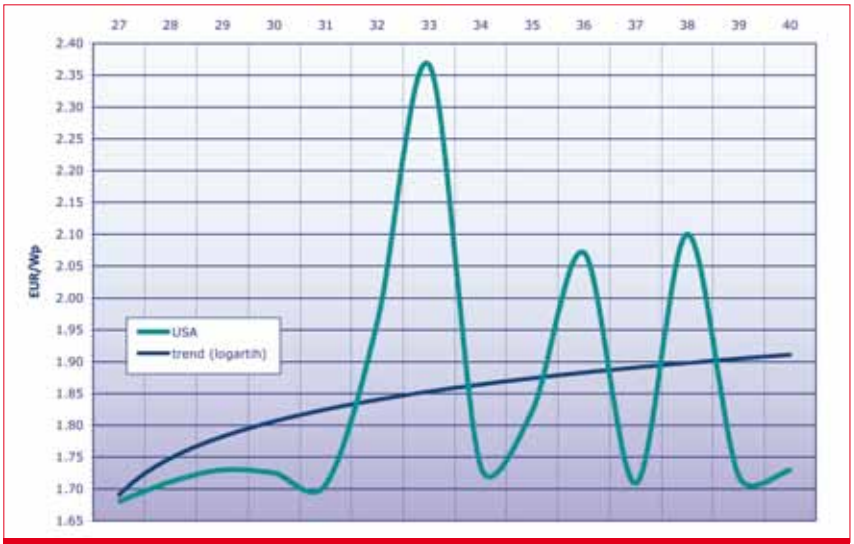
Despite advance bookings in July and August, the current course is beginning to turn and many well-known brands are sold out and currently not available on the spot market. Many buyers booked larger volumes in advance, so the price level in this snapshot is lower than the real price level for September. Such a tendency towards an increasing price level is again reflected by First Solar's modules, which were sold during the last quarter for 1.55€/Wp and are now up to 1.70€/Wp.



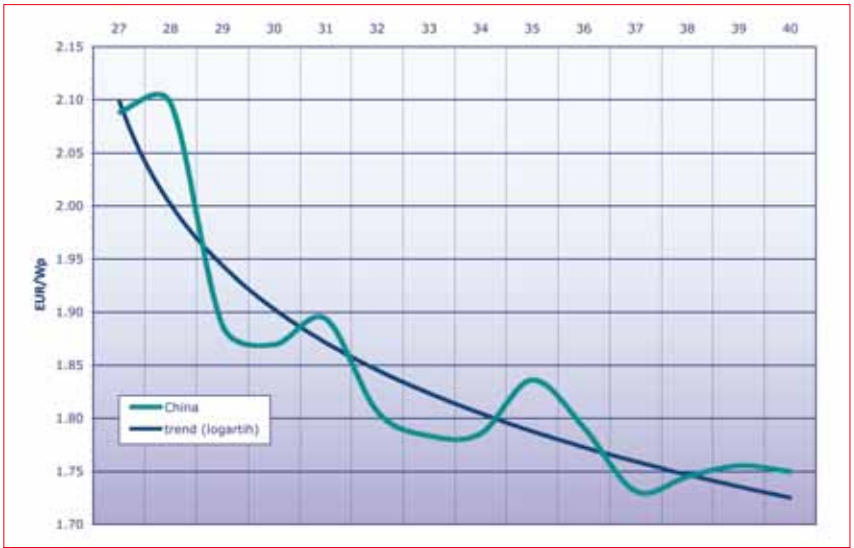
Development of market prices for modules produced by German manufacturers from July 2009 to (end of) September 2009 (in €/Wp).



Development of market prices for modules produced by Japanese manufacturers from July 2009 to (end of) September 2009 (in €/Wp).



Development of market prices for modules produced by U.S. manufacturers from July 2009 to (end of) September 2009 (in €/Wp).



Development of market prices for modules produced by Chinese manufacturers from July 2009 to (end of) September 2009 (in €/Wp).

While larger volumes of no-name products from China are still available on the spot market, the market for brand modules has been swept clean. High-performance modules from the likes of Suntech Power, Yingli and Sunpower, for example, will not be available on the European market until at least the end of the year. Thin-film modules are also showing a shortage of supply on the spot market, with delivery periods extending to as long as six or even eight weeks.

Over the next few months, a further sharp price increase of at least 10-15€ct/Wp for the most requested brand modules is expected, with an increase of up to 10€ct/Wp for Japanese, 10-15€ct/Wp for German and 10-15€ct/Wp for Chinese-brand modules. For no-name modules from China, a constant price development or even slightly decreasing prices are to be expected.

Furthermore, in the last reporting period, the following observations can be made:

- During the last few months, there was no remarkable difference in prices between mono- and polycrystalline modules, even though the latter saw a higher demand.
- The price for HIT modules was relatively stable, trading only in small volumes and mainly used for small BIPV systems.
- a-Si modules are the cheapest modules available on the spot market and are often used for larger installations in Eastern Europe.
- The price level for CdTe modules was relatively stable but is currently increasing due to high market demand.

Many big-name manufacturers and system providers are currently reporting a slump in sales or even considerable losses in the first half of 2009. Ambitious plans to expand in Asia nevertheless show that European firms – such as Q-Cells and REC – have not yet abandoned hope of an imminent upturn in demand. It is expected that First Solar will sell its entire annual production of about 1GW, which would see First Solar surpass the production of the world market leader for crystalline silicon modules, Suntech Power, almost twice. Future production capacities look virtually unlimited; nevertheless, inventories are still growing everywhere.

Similarly, Chinese manufacturers' prices are almost 20% cheaper than those of European competitors. The argument that the quality of modules from China is lower than those of the West is no longer enough to defend the benefits of Western industry. Some of the major Chinese manufacturers are qualitatively and technologically among the industry frontrunners. Monocrystalline cells Suntech, for example, reach an efficiency of 18.8% and 17.2% using polycrystalline cells. Moreover, the prices of crystalline modules from China have almost caught up with those of thin-film panels, making them more and more attractive for large projects.

Some manufacturers have apparently found a way out by building their own megawatt-scale plants. Rather than pushing modules onto a saturated market at low prices, they are using these modules in their own project installations. A current example is a joint venture between Q-Cells and MEMC that is now investing in a 50MW project in Lower Bavaria. The U.S. market is also likely to absorb a noticeable share of worldwide module production soon; large projects are no longer exclusively planned for California, Texas or Arizona.

It remains to be seen whether prices will stabilize in the short term. The price war is likely to pick up again, in the fourth quarter at the latest, if many of the thin-film factories currently in start-up mode can produce enough high-efficiency modules.

About the Authors

Founded in Berlin in 2004, **pvXchange GmbH** has established itself as the global market leader in the procurement of photovoltaic products for business customers. In 2008, the company procured solar modules with an output of around 100MW. This represents a trading volume of approximately €300 million. With its international network and complementary services, pvXchange is constantly developing its position in the renewable energy market, a market which continues to grow on a global scale. Based in Europe, pvXchange also has a presence in Asia and the USA.

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