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# Snapshot of spot market for PV modules - quarterly report Q1 2011 

pvXchange, Berlin, Germany


#### 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 supplyarrangements as a last resort.


Prices are falling and falling, and the spot market for PV modules has said farewell to Q1 2011, which saw prices that that have never been so low. Whether the prices will rise again - as so often happens at the start of summer - is difficult to predict.

In this issue of Photovoltaics International, we present our market report using a slightly modified structure. With an ever-expanding share of products on the spot market coming from South Korea and Taiwan, we are incorporating more statistics from these regions than before. As price developments seen in some markets are almost identical, we have combined the four nations in two groups: China/Taiwan and Japan/Korea. We have also performed an accurate analysis of the European offers on the pvXchange spot market and have come to the conclusion that - for us at least - the relatively small offers being produced by the Spanish, Italian and Scandinavian markets are no more statistically relevant than these 'new' markets. Overall, crystalline technology accounts for over $80 \%$ of offers available on our exchange, as shown in Figs. 1,2 and 3 . About $20 \%$ of the offers - a figure that also accounts for the technology's share of global module production - are thin-film modules. As these figures are split across a number of different technologies and price levels, we will not report on their data at this point. According to various studies, the proportion held by these thin-film technologies will increase to about $30 \%$ by 2012 and, of course, will continue to form part of our quarterly market reports in future.

The cause for these low prices reflects an overall weakness in the spot market. Many investors are fazed by the uncertainty that still surrounds large markets such as Germany and Italy. At the same time, many buyers are continuing to bet that falling prices can remain stable, thereby avoiding the yields of PV systems despite decreasing feed-in tariffs. Suppliers and distributors with a sufficiently large capital base experience only limited effects from this uncertainty. Prices continue to decline slowly, and stores in European ports are well-equipped with goods from Asia.


Figure 1. Development of module prices for modules produced by German manufacturers from January 2011 to beginning of April 2011.

However, this could be set for a change. Silicon prices on the spot market reached US $\$ 79 / \mathrm{kg}$ in March, the highest it has been since January 2009. Many cell producers whose prices remained unchanged are now suffering under tight profit margins, while those manufacturers that had the option of using the strength of the European currency have avoided much of the distress
caused by the increase in commodity prices, which tend to be negotiated in USD.
One-third of module sales on the spot market for Q1 went to Italy. The country's Government's plans to amend the feed-in tariff led to a rush to complete and gridconnect PV plants by the end of May in order to avail of the higher remuneration. Italy will, together with Spain, Germany,


Figure 2. Development of module prices for modules produced by Japanese/ Korean manufacturers from January 2011 to beginning of April 2011.

France and England, most likely see reductions in their respective feed-in tariffs. It is therefore not surprising that some experts anticipate a weak second half for 2011's market as a result of all of these changes. Global demand growth is expected in markets in the USA, Canada, China and India. Even Japan's market is on the up, with a new feed-in-tariff being introduced that will allow for an additional gigawatt to be connected to the grid. This is, of course, dependent on whether the frightening events of March will allow the Japanese government sufficient financial breathing room for the development of solar energy.

In Europe, Eastern European countries and Greece will again provide a revival of the market. Chinese module manufacturers in particular have their eye on the Eastern European markets and are more active now in Bulgaria, Croatia, Romania and Hungary than they have ever been.

The experts therefore remain optimistic in their predictions, projecting that the world market for 2011 will reach between 16 and 19GW of new installed power. Nevertheless, the percentage of strong markets such as Germany, Italy and the Czech Republic will dip in 2011. It is encouraging to note that more than 100 MW of PV modules will be installed in at least 18 countries this year, says IMS Research. In 2009, this had spread to only eight nations. Thus, the expansion of the usage of global solar energy is distributed across more members than ever before.


Figure 3. Development of module prices for modules produced by Chinese/ Taiwanese manufacturers from January 2011 to beginning of April 2011.

## About the Authors

Founded in Berlin in 2004, pvXchange $\mathbf{G m b H}$ has established itself as the global market leader in the procurement of photovoltaic products for business customers. In 2010, the company procured solar modules with an output of around 180MW. 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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