

Snapshot of spot market for PV modules – quarterly report Q4 2008

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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.

Introduction

A spot market always shows the up-to-date prices of solar modules, because it does not consider the long-term delivery contracts of the producers. These days, the spot market for PV modules is global, because the short-term satisfaction of local supply deficits is possible with short transportation times and relatively low logistics costs.

pvXchange provides a closed online trading platform for sellers going 'public' with a short-term offer. Other participants of the market can decide if they want to buy the goods at that price, while potential buyers may post their interest and in turn be contacted by interested sellers.

Each issue of *Photovoltaics International* will enable the tracking of spot prices of modules through statistics provided by the pvXchange trading platform.

Clear decrease of trade volume

A total of 2MWp of PV modules were sold on pvXchange's spot market platform in December 2008. This corresponds to a sharp decrease of 60% when compared to the figures seen in the previous month (5.6MWp). Low trade volumes throughout the years are common on pvXchange; this year, bad weather conditions prevented many new installations, as did the current economic climate that saw many buyers waiting for further price decreases. The closing of long-term contracts has been postponed by many PV companies that are concerned that they will not find customers given the current circumstances. Again, First Solar's CdTe thin-film modules were the most traded technology item on the pvXchange platform for the month of December.

Decreasing price trend

The decreasing price trend noticed in October and November was confirmed in December; in fact, price drops accelerated further for the last month of the year.

The sharpest slump was again noticed for less well-reputed Chinese brands (average price 2.78€/Wp), due to a consequently loose price policy on the part of suppliers and the very high availability of offers on the spot market. Since November, a downward price trend has also been very evident for more established Japanese (average 2.97€/Wp) and German brands (average 3.11€/Wp). Even First Solar's thin-film modules showed a considerable slump to an average price of 2.27€/Wp, a change that can be put down to the fact that the largest supplier of these modules

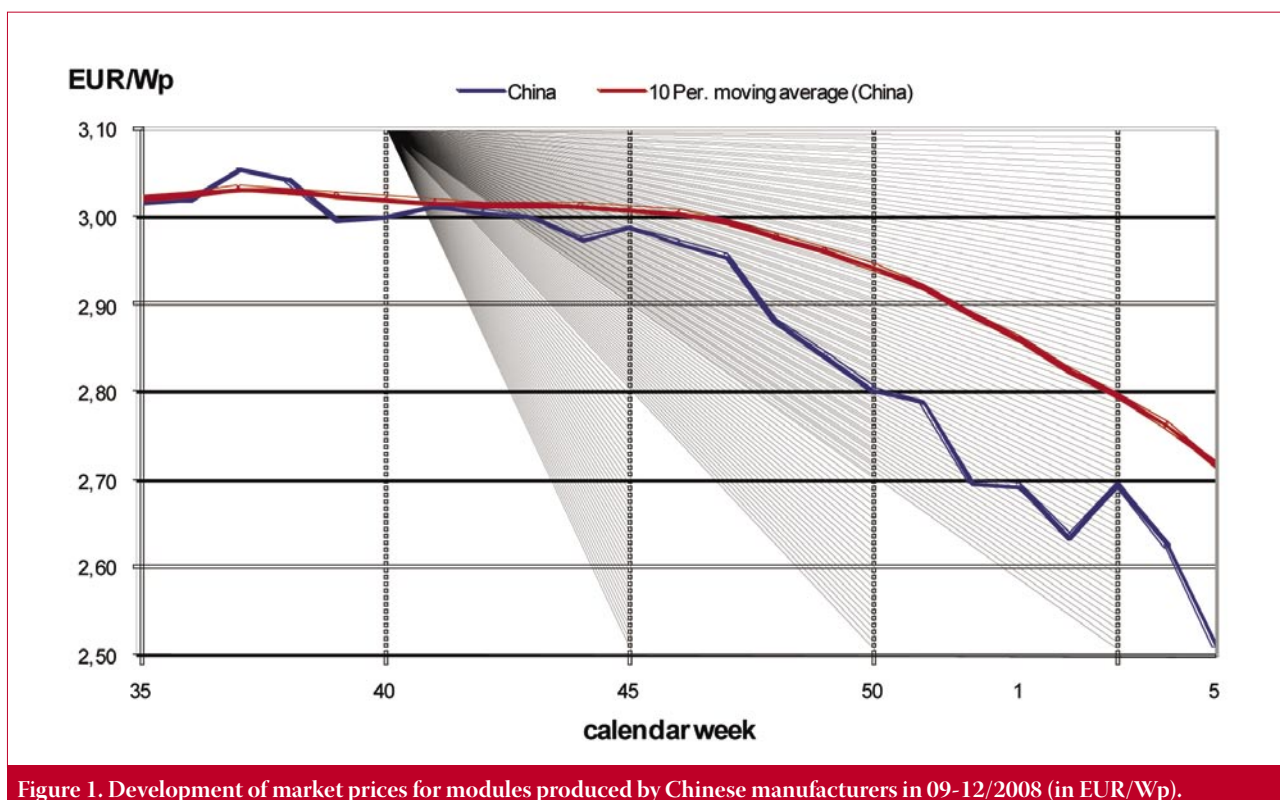


Figure 1. Development of market prices for modules produced by Chinese manufacturers in 09-12/2008 (in EUR/Wp).

decided to sell out its warehouse towards the end of the year. Even Sanyo's high-efficiency HIT lost their previously stable price position – average prices fell from 3.7€/Wp in October to 3.54€/Wp in December.

For the first quarter of 2009, we expect further sharp price decreases by at least 10-12¢ct/Wp for the most wanted Chinese modules; up to 10¢ct/Wp for Japanese modules; 5-10¢ct/Wp for European and 3-5¢ct/Wp for German modules. On the other hand, we expect a slight increase of prices for First Solar modules, resulting in no further decrease overall for these products.

Price analysis: price trends by countries of origin

In this section we analyse the split of average prices for modules traded on pvXchange in regard to the different countries of origin, in particular:

- Well-established and reputed premium brands from Germany, Japan and Europe on the one hand,
- Less established brands, mainly by Chinese manufacturers, on the other hand.

Figures 1, 2, 3 and 4 show the development for Chinese, Japanese, European and German modules, respectively, over the last four months.

Average prices for modules traded in latest month by country of origin

In the last period of each of the countries' respective data charts, the following average prices and ranges can be seen for the different modules by country of origin:

- Average price for Chinese modules in total: 2.78€/Wp (December)
 - All Chinese manufacturers had to cut prices. There is hardly any difference between different brands anymore; all suppliers follow decreasing price policies, with even Suntech modules slowly becoming cheaper.
- Average price for Japanese modules in total: 2.97€/Wp (December)
 - This average is representative for all Japanese brands traded on pvXchange (Mitsubishi, Kyocera and Sharp). A clearly downward price trend for Japanese modules is noticeable since November.
- Average price for European modules in total: 3.02€/Wp (December)
 - This average is representative for all brands traded on pvXchange – effectively, REC Solar, as well as one Spanish and one Italian manufacturer.
- Average price for German modules in total: 3.11€/Wp (December)
 - This average is representative for all brands traded on pvXchange (Solarworld and Schott Solar in particular).

In general, there are now large capacities of high-quality modules available on the spot market. Opportunities for newcomers or no-name brands are much worse than they were before, especially if prices for brand modules are facing further reductions in the coming months.

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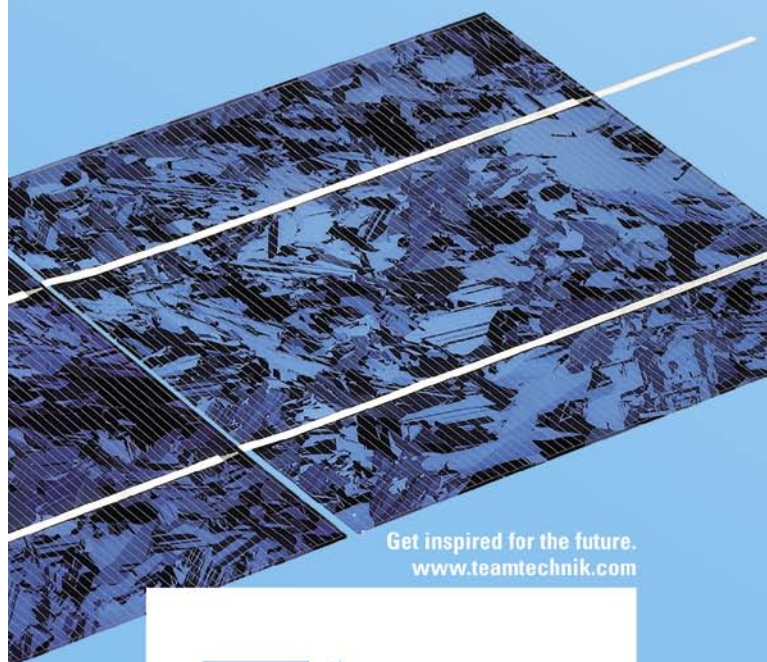
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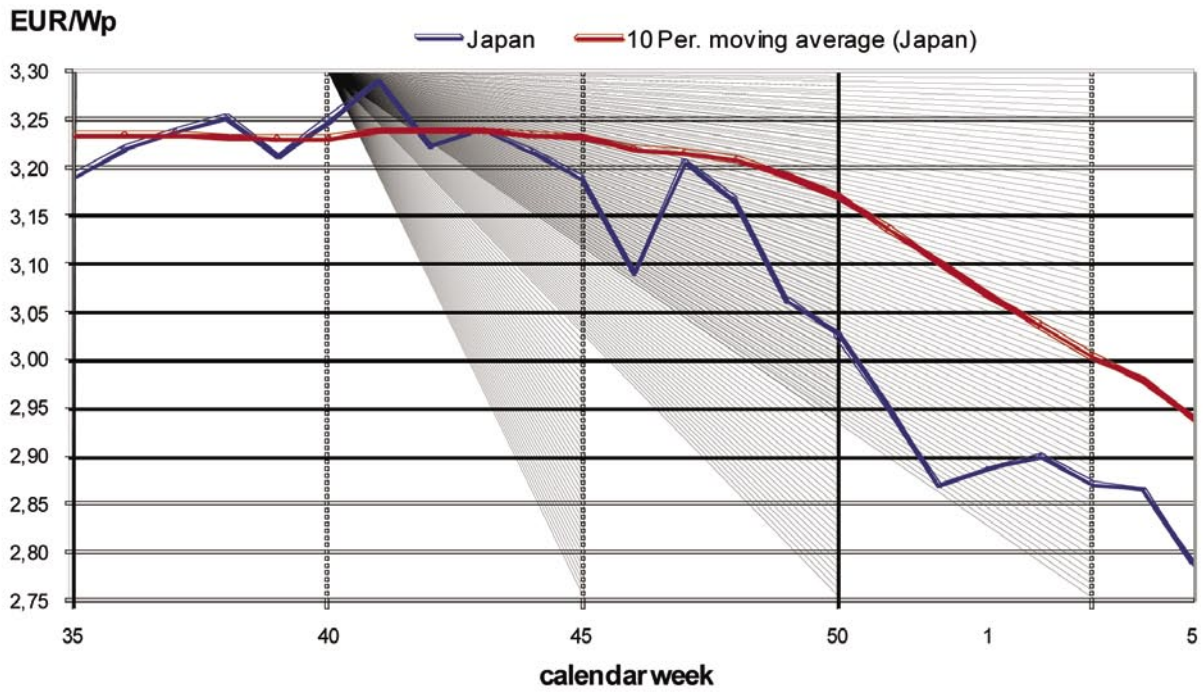


Figure 2. Development of market prices for modules produced by Japanese manufacturers in 09-12/2008 (in EUR/Wp).

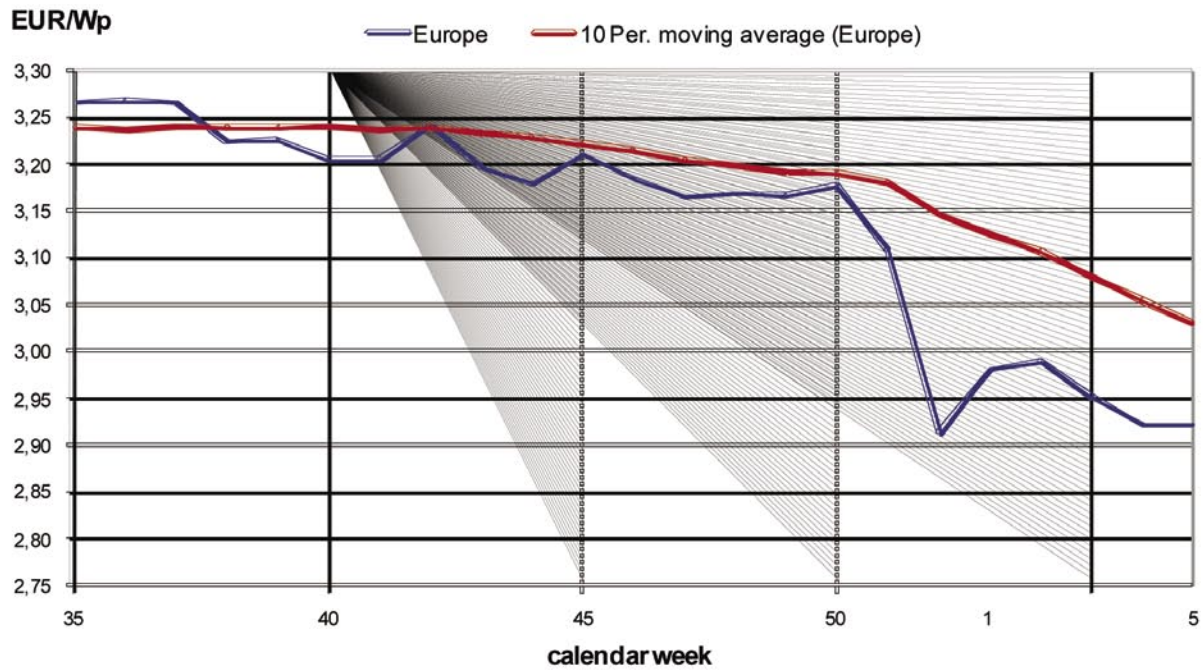


Figure 3. Development of market prices for modules produced by European manufacturers in 09-12/2008 (in EUR/Wp).

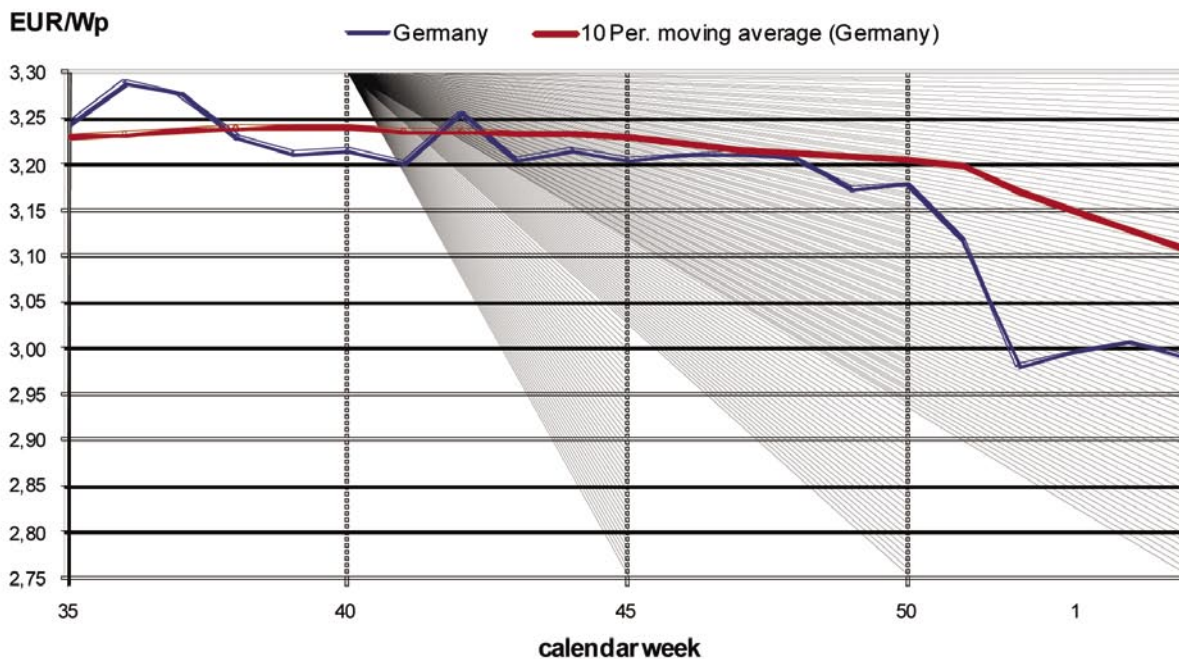


Figure 4. Development of market prices for modules produced by German manufacturers in 09-12/2008 (in EUR/Wp).

Current trends: comparison of average prices to previous months

Regarding the price development over the last few months (September-December 2008), the following observations can be made:

- Chinese modules: extreme price reductions since September
- Japanese modules: first price cuts noticeable in November and December.
- German modules: compared to other groups, there seems to be a slow price decrease noticeable so far. However, data showed a clearer downward price trend than in the previous month.
- US modules (mostly First Solar): available in considerable volumes again since

October/November. In November and especially in December, the first price cuts were seen.

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. This market report is a quarterly synopsis of a monthly updated analysis made in co-operation by *pvXchange* and *eclareon*.

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