

# Snapshot of spot market for PV modules – quarterly report Q4 2010

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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

2010 – what a year! The global PV market has seen growth rates and prospects the likes of which other industries can only imagine. Highly-developed capacity in the module and inverter production sectors has been sufficient in the past year; enough goods were available and they are becoming cheaper and cheaper on the market. Only the presence of those coveted 'bestseller' products from known brands has prevented prices from falling even more than they already have. At the same time, the spot market has grown strong, delivering pvXchange its strongest year since its foundation. Approximately 180MW of solar modules and inverters with a capacity of 85MW/AC were traded by thousands of registered participants. The statistical basis for the analysis of the fourth quarter's trading activities is thus based on more records than ever before.

Before we look at the entire year, let's take a more in-depth look at Q4 of 2010. The expected decline on the spot market was not as severe as anticipated at the end of the third quarter. This was particularly true for high-power modules that were available in Europe. By the end of the year, demand was steady as a result of ongoing projects in Italy and the Czech Republic. However, modules purchased from Asian manufacturers at the end of November that were scheduled to arrive at their European destinations in mid-December have been more favourably priced at an average of €0.05 per watt.

What is striking is the rapid decline in prices of CdTe modules. This was the most likely factor at play in the declining demand in Germany – the biggest market for this thin-film technology. By comparison, while prices for crystalline modules fell in November compared to October by about 1%, CdTe module prices fell by over 5%.

Considering, therefore, that the data regarding regions and technologies being produced is more accurate, several interesting developments have occurred in the past year. In December 2010,

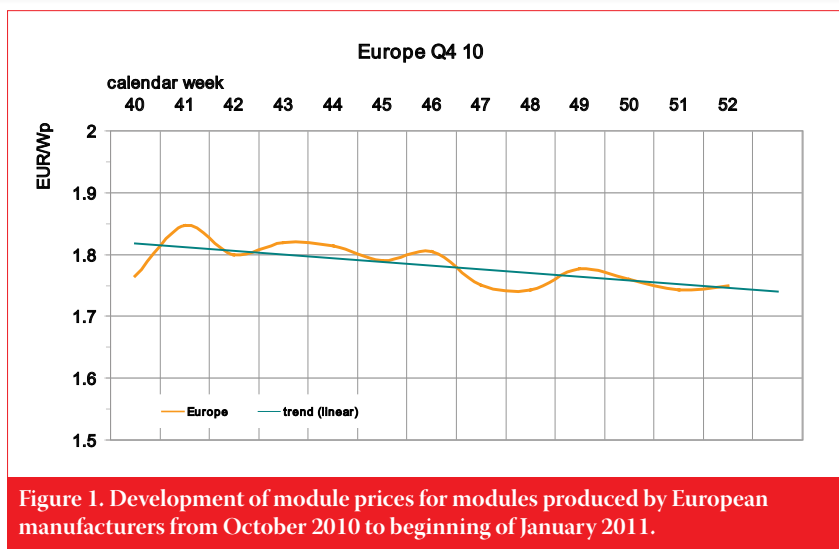


Figure 1. Development of module prices for modules produced by European manufacturers from October 2010 to beginning of January 2011.

Chinese module prices were only about 1% lower than prices in January 2010. Japanese manufacturers reduced their prices by about 10.5% during the year. The region that saw the greatest decline was Europe, with a price decrease of about 13.8% by the end of Q4. Among the manufacturing regions, this also reduces the overall price difference in crystalline solar modules. While Chinese modules in January were between 30% and 22%

cheaper than those from Europe and Japan, they are now only between 12% and 10% cheaper. The price advantage in the European markets seems to be shrinking for Chinese producers.

Over the course of the year, thin-film producers have adjusted their prices. Prices for a-Si and microcrystalline modules have fallen by 11.8% on average. Even First Solar's CdTe modules had to cope with a price cut of 14.3% on the PV market.

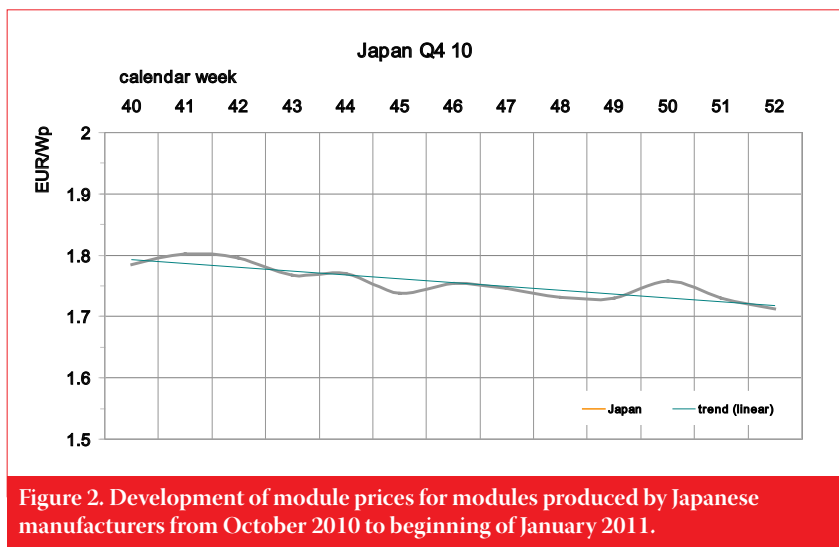


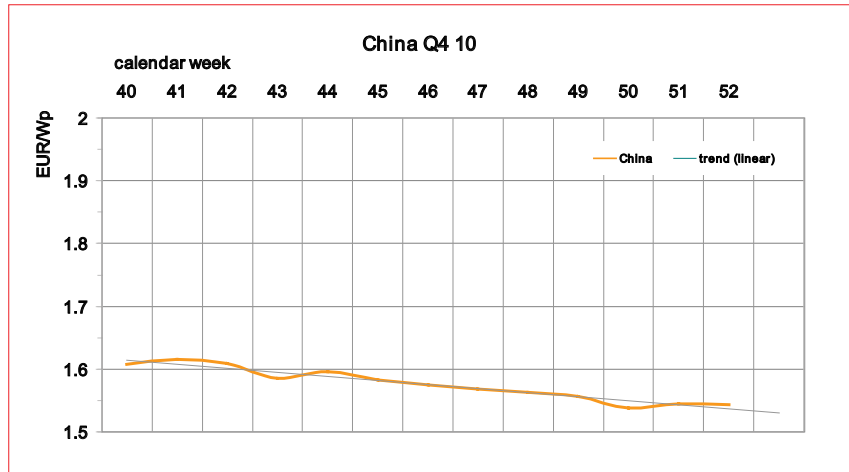
Figure 2. Development of module prices for modules produced by Japanese manufacturers from October 2010 to beginning of January 2011.

Crystalline manufacturers from Asia have been clear-distance winners on the spot market in 2010. They have clearly benefitted more than their competitors from the increased demand from Germany following the introduction of the new feed-in tariff in July. The same can also be said of Chinese manufacturers as a result of developments in the Czech and Italian markets in the second half of the year.

There are many reasons for the worldwide price decline. In addition to growing over-capacity in the crystalline solar module sector, there are falling cellular prices on the spot market. The price for solar cells as at the end of Q4 was US\$1.42 per watt compared to US\$1.20–1.25 per watt in November. Furthermore, the seasonal cooling of the solar industry coupled with political decisions in Germany and France are certainly not beneficial to the turnover of the manufacturers in the coming months. The new year is uncertain; 2011 is expected to diversify demand in favour of new, non-European markets. Nevertheless, the expected peak positions will feature the same countries – with the exception of the Czech Republic – as 2010.

**About the Authors**

Founded in Berlin in 2004, **pvXchange GmbH** has established itself as



**Figure 3. Development of module prices for modules produced by Chinese manufacturers from October 2010 to beginning of January 2011.**

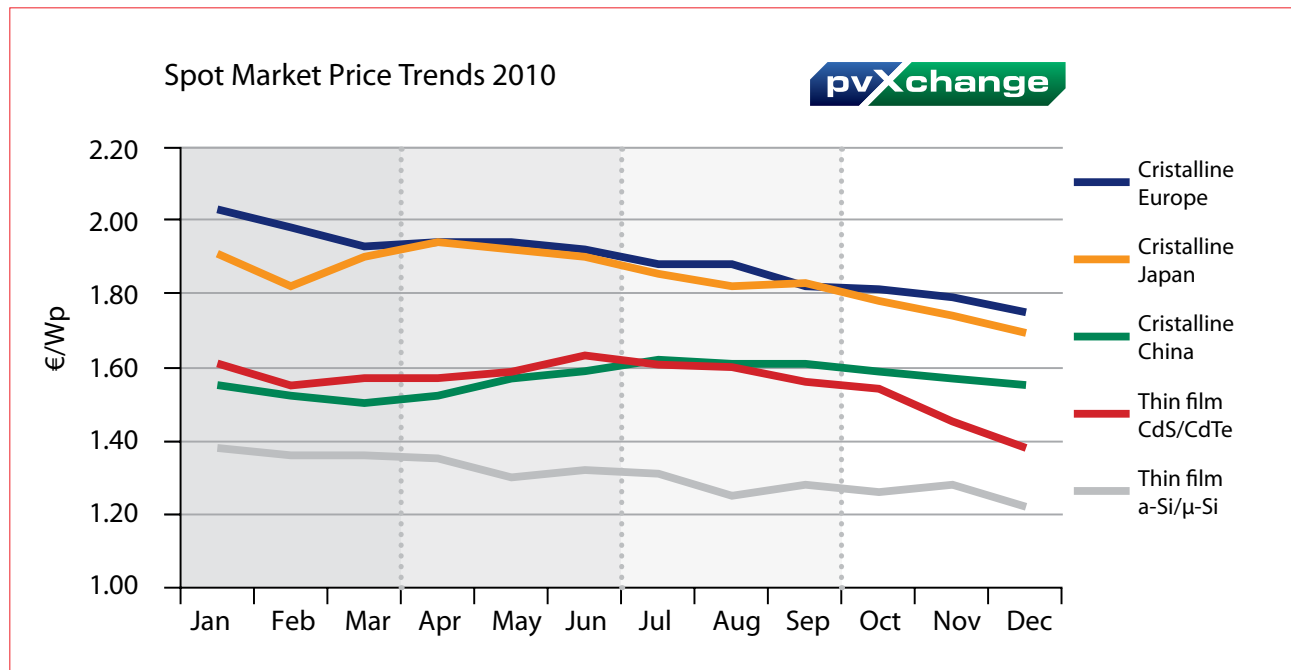
the global market leader in the procurement of photovoltaic products for business customers. In 2010, the company procured solar modules with an output of around 180MW. With its international network and complementary services, pvXchange is constantly developing its position in the renewable energy market, 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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**Figure 4. Spot market price trends (by technology type and region) for 2010.**