Solar panel overcapacity expected in 2009, says The Information Network

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While solar energy panel sales have and will continue to grow at a rate of about 40% per year, market research firm The Information Network indicated that several key growth drivers, including high oil prices, a polysilicon shortage and government subsidies, are expected to have less of an effect on the market in 2009. Considering that the costs of solar are not yet able to compete with traditional sources of energy, overcapacity in the market is expected in the short-term.

The Information Network noted that utilization rates at solar plants are only 56% and its analysis of 103 solar manufacturers showed that panel production capacity in 2009 will be 15GW whereas only 8.3GW will be sold.

Beyond next year, players in the solar market will continue to face changing market dynamics even as the industry continues in showing strong signs of growth.

High oil prices have been driving demand for solar panels, but with oil prices dropping to US$60 a barrel, there will be a lot less interest in alternative energy. While this may be a short-sighted view by companies, the economic realities of the global economy – highlighted by a credit market crunch – mean that even those companies that want to build solar plants may have difficulty finding funding.

In addition, the high price of oil over the past year was also a catalyst for development of other energy sources, not just solar. Technological advances are reducing the cost of wind power to a point at which it is becoming competitive with traditional energy sources, while geothermal and hydropower are also growing in economic viability. Nuclear power plants smaller than a garden shed and able to power 20,000 homes will be on sale within five years, The Information Network cited scientists at Los Alamos as saying.

Within the solar market, a shortage of polysilicon used to make high efficiency solar panels led to a surge in thin-film panel demand, noted Dr Castellano, president of The Information Network. However, there has been a counter surge in investment in polysilicon wafer plants. The increased production capacity of polysilicon will reduce demand for amorphous silicon thin films with efficiencies of less than 8%.

This will impact equipment companies such as Applied Materials in the US and Oerlikon in Europe. It will also affect the gas companies that sell chemicals for deposition of thin-film silicon, such as Air Products and Air Liquide, Castellano said. Japan-based equipment maker TEL is entering the market at too late a date to compete, he added. These equipment vendors have been working on developing micromorph structures to get higher efficiencies, but that is a few years away. They could focus on CdTe like First Solar, but there are limited supplies of the raw materials, and concerning CIGS, vacuum techniques are much more expensive than ink-jet printing, Castellano explained.

Spot market prices of 6-inch solar-grade wafers have fallen to US$9 from a high of US$12.50 in September, the market research firm stated. This bodes poorly for thin-film makers and equipment suppliers. The thin-film solar panel market and hence the equipment market grew strongly because of the shortage of polysilicon. Now that polysilicon is abundant and lower priced, why make thin-film panels with 8% efficiency when you get at least 16% efficiency with silicon wafers, Castellano pointed out.

The Information Network also indicated that Spain, a huge buyer of solar, reduced its incentive program to aid buyers in 2009.
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