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Solar Power's Best Bets

BY: FAST COMPANY STAFF November 29, 2010

The economic downturn and Applied Materials' failure in the thin-film solar business were a one-two punch to the thin-film solar industry. Here's how the big players look heading into 2011.

Related Content

SHARP Sharp Solar

The No. 3 manufacturer of solar panels in 2009, <u>Sharp</u> produces conventional crystalline-silicon panels. Increasingly focusing on amorphous silicon, the company has 320 megawatts online compared to 430 megawatts of crystalline-silicon capacity, says Greentech Media analyst Eric Wesoff.



First Solar

First Solar. The <u>No. 1 thin-film solar manufacturer</u> was the world's largest solar manufacturer in 2009, with production capacity expected to be 2.7 gigawatts by 2012. It makes cadmium-telluride panels, which are more efficient than the amorphous silicon Applied Materials bet on. Annual revenue is in excess of \$2 billion.



Energy Conversion Devices

The company produces the Uni-Solar brand of amorphous-silicon panels, which is foil based and flexible and can be attached to roofs like a sticker. <u>ECD</u>, which generates about \$300 million in annual revenue, said in August that it was moving some of its 150-megawatt capacity to Mexico.

cerlikon Oerlikon Solar

Solar One of Applied Materials' only direct competitors in manufacturing has the tools to produce amorphous-silicon panels. VLSI Research ranks <u>this subsidiary of the Swiss industrial Oerlikon</u> as the No. 1 solar turnkey supplier and named its line the "best technical product for thin-film manufacturing" last year.

Solar Frontier

<u>This subsidiary</u> of the Japanese oil company Showa Shell Sekiyu began researching its copper-indium-selenium technology in 1993. It expects to ship more than 100 megawatts of panels this year and reach more than 1 gigawatt of capacity by 2011. In October, it signed a deal to supply General Electric-branded panels to GE.

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