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China Cheaper, But U.S. Solar Plants Have A Chance

By DONNA HOWELL, INVESTOR'S BUSINESS DAILY Posted 09/29/2011 05:13 PM ET



Suntech staff talk with visitors at the Chinese solar company's booth during a technology fair in Shanghai on Feb. 22, 2011. China makes 60% of the... View Enlarged Image

President Obama has made green jobs a centerpiece of his economic policy. But plunging prices and the August bankruptcies of Evergreen Solar, SpectraWatt and the now-infamous Solyndra raise doubts about whether made-in-America solar products can compete with Chinese rivals.

Despite recent failures, many experts say the U.S. solar industry can thrive by staying cutting edge and leveraging its lower transport costs for the U.S. clients.

But even many U.S. companies source much of their production from overseas plants to tap lower-cost capital and labor.

"You can have the best technology in the world," said Jason Rissanen, consulting firm Deloitte & Touche's U.S. clean-tech practice leader. "But if you can't build it at a low-enough price you can't be a success."

Some big bets are being made on the U.S. **General Electric** (GE) plans to invest \$600 million to build the world's largest solar factory here. It

wants to keep a close eye on its thin-film process that yields power from little material.

To be sure, there are "some fundamental economics of manufacturing in Asia with which the U.S. can't compete," said Jim Nelson, CEO of Solar3D and a 20-year private equity veteran. He cites the lower cost of engineering talent.

But labor cost as a share of the finished solar price is "shrinking fairly dramatically" as plants automate, argues Tom Kimbis, vice president of strategy for the Solar Energy Industries Association.

Usha Haley, professor of international business at New Zealand's Massey University, says labor costs are just "6%-8% of manufacturing panels."

Cost of capital is far more important, she says. In China, solar firms can get huge, cheap loans — plus free land and electricity from provincial governments. Haley gives details in a forthcoming book, "Subsidies to Chinese Industry: State Capitalism, Business Strategy and Trade Policy."

"What companies are going to be doing is producing technology they can then manufacture in China," she said.

The Energy Department OK'd more than \$1 billion in loan guarantees Wednesday to two solar power projects ahead of a Sept. 30 deal deadline. That followed Solyndra's crash after getting a \$527 million DOE loan guarantee.

U.S. players excel in innovation to cut costs or boost energy output. The top domestic firm, **First Solar** (FSLR), has used thin-film tech to cut module production costs to 75 cents per watt vs. the cheapest Chinese rival's \$1.15, notes Kaufman Bros. analyst Jeffrey Bencik. It manufactures in Ohio, Arizona, Germany, Malaysia and Vietnam.

Nelson's Solar3D aims to get more electricity from sunlight by bouncing it inside a 3-D solar cell.

SunPower (SPWRA) competes with a high-efficiency solar module. It produces, partly via joint ventures, in South Korea, the Philippines and Malaysia. It also uses contract manufacturers in China, Mexico, Poland and California.

China makes 60% of the world's solar cells, and local firms such as **Yingli Green Energy** (YGE) and **Suntech Power** (STP) increasingly compete on quality as well as price.

But Beijing's checkered history on intellectual property gives U.S. innovators an incentive to produce at home.

"If I as a small entrepreneur go to China, in about a month they've figured out how it works and I'm out of business," said Robert Castellano, president of Information Network, who has been working on a coating to improve solar efficiencies."I've refused to do business with the Chinese."

Also, setting up near end users saves transportation costs. And America may soon be the largest solar market.

China's Suntech opened an Arizona facility. Domestic and foreign firms have 51 U.S. solar-related factories, Kimbis notes.

Still, the outlook is stormy. Solar modules ran for \$3.50 a watt a few years ago. But as the industry grew and subsidy cuts slashed European demand, prices dived to an average \$1.30 a watt.

Stock prices have plunged: The Energy-Solar group is 197th out of IBD's 197 industries.

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