



## **MIASOLE TO USE \$91M TAX CREDIT TOWARD 2ND FACTORY**

### **Yuliya Chernova, Dow Jones Clean Technology Insight**

1/14/2010 – Thin-film solar panel maker MiaSolé Inc. will put most of the \$102 million in tax credits allocated to it last week under a federal program toward its second manufacturing facility, which will cost in excess of \$300 million, the company's executives told Clean Technology Insight.

The company is one of several makers of copper-indium-gallium-selenide panels, like Solyndra Inc. and Nanosolar Inc., that are finally moving into large-scale production. National Renewable Energy Laboratory estimates that about 104 megawatts of CIGS panels were produced in 2008, and that about 400 MW could be manufactured in 2010 by all players.

MiaSolé is currently able to produce annually about 20 megawatts on its production line in Sunnyvale, Calif., said Joe Laia, the company's chief executive, in an interview. Last year, the company manufactured "several megawatts," he said. MiaSolé's headquarters is in Santa Clara, Calif.

Equipment for a second 20 MW line is being installed now. Another 60 MW will be added in 2010, he said. That expansion will be sponsored in part with a \$10.5 million tax credit that the company can receive under the Advanced Energy Manufacturing Tax Credit program, which allows manufacturers to offset taxes for up to 30% of the cost of equipment for their manufacturing lines.

MiaSolé received certification for its large five-foot by two-foot 107-watt panel in October from accrediting agencies that enable panels to be used in projects that receive government incentives in the U.S. and Europe. It also began shipping the panels to customers, primarily in Europe, according to Laia.

"In 2010 you'll see a lot of little projects going in the U.S. and bigger projects in Europe," said Laia. He expects the panels to appear in projects in France, Italy, Germany, Spain, Portugal, India and several U.S. states.

This year the company will be working on reducing costs. "It's really important to get the costs down to where First Solar is," said Laia. First Solar Inc. makes panels using cadmium telluride semiconducting material at about 85 cents per watt. Their power conversion efficiency is about 11%, compared to about 10% for MiaSolé.

The second factory will be "much larger" than its first, said Laia, declining to specify size and location, other than to say it will be in the U.S. "It will be the the same panel, same process, same hardware and same customer base - just an expansion in capacity," he added.

It would need to have capital upfront for the full cost of the planned facility, and would cost more than \$300 million, she said. Laia said the company is in the process of applying for federal loan guarantees to help finance the second factory.

The company would also be able to use about \$91.4 million in federal tax credits under the Advanced Energy Manufacturing Tax Credit. The money is not a grant, and can be used only as a way to offset the

taxes that the company would pay. Merle McClendon, MiaSolé's chief financial officer, said the company would use its offset once it starts generating sufficient taxable income.

The executives declined to discuss revenue, the cost to produce its panels, any fund-raising plans or to say how much capital the company has raised to date. The company hasn't filed any documents in the past two years with either the Securities and Exchange Commission or the California Department of Corporations regarding fundraising.

"Soon enough we'll be a public company, and that [information] will be out," said McClendon. The company hasn't filed a registration for an initial public offering.

It raised about \$100 million in rounds before 2008 from investors including Kleiner Perkins Caufield & Byers, VantagePoint Venture Partners, Firelake Strategic Capital Fund, Garage Technology Ventures and Nippon Kouatsu Electric Co. It was close to wrapping up a \$200 million fund-raising in July 2008, according to a previous story by Clean Technology Insight. It's not clear whether the company succeeded in raising that capital.

An NREL analysis published in September 2009 on the effect of the financial crisis on solar technologies noted that analysts' predictions for production of CIGS panels in 2010 range from 100 MW to 1000 MW. "The enormous range reflects both the substantial scale-up and technology risks, as companies such as MiaSolé, Nanosolar and Solyndra expand commercial production, and also the promise of the technology, which has the potential for similar costs but higher efficiencies than [cadmium telluride] or [amorphous silicon] modules," the report said.

Cadmium telluride-based thin-film panels have been produced at a growing rate, according to NREL, but CIGS modules have an advantage of being capable of higher efficiencies.

The recession made MiaSolé drive down more on reducing costs and increasing reliability, as customers and financial institutions became more conservative, said Laia.

"I've been here for two-and-a-half years. The first year I was here we worked on technology, turning every knob. The second year we spent on reliability, to make sure everything would last 25 years. And the last six months we've spent on getting yields to the point where you can compete," he said.

The company will open up its second factory in an existing building, instead of constructing from scratch as is being done by Solyndra Inc.

"There's enough empty manufacturing space in the U.S. that there's no need to go greenfield," said Laia. "It's almost irresponsible to build a brand new building. There are a lot of states, unfortunately, with empty buildings."

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