

# Another Oerlikon Solar customer enters mass production Sunwell shipping thousands of modules

EUPVSEC/Valencia (Spain), 1 September 2008. – Sunwell, a wholly owned subsidiary of CMC Magnetics (Taiwan), today announced the start of mass production at its Taiwan based thin film PV plant. In the past month more than 10,000 solar panels were produced with an Oerlikon Solar end-to-end fabrication solution. All contract parameters for SOP (start of production) were met nearly one month early. This represents a "time to revenue" achievement of less than nine months from delivery of equipment. Once again, Oerlikon Solar is demonstrating that it can deliver on its promises. "It was amazing to see how quickly and professionally Oerlikon Solar experts were able to commission our facility. This experience gives us a great deal of confidence in our plans to expand Sunwell's manufacturing capacity to gigawatt level production in the coming years", states Bob Wong, Chairman of CMC Magnetics. The facility is based on amorphous silicon thin film technology and has a yearly production capacity of 40 MWp.

Sunwell is rapidly gaining market share. The initial tranche of modules is designated to be integrated in a large scale solar farm project; thousands of panels have already been shipped. "With Sunwell in mass production, Oerlikon Solar's first Asian customer is becoming a leading supplier in the rapidly growing Asian thin film solar panel market, and they're doing it with our technology. We see this as an important milestone for both Sunwell and Oerlikon Solar", says Jeannine Sargent, CEO Oerlikon Solar.

# **Demonstration of true partnership**

Sunwell and Oerlikon engineers worked in true partnership during installation and production ramp-up. Sunwell engineers have participated in the whole process and successfully resolved critical issues together with Oerlikon experts. In order to keep up with the schedule, the project team worked 24-7 to make sure all important milestones were achieved.



Page 2 Sunwell has inherited its high quality mass production competitive advantage from its parent company, CMC Magnetics Corporation. CMC has been working with Oerlikon since the optical media days. Oerlikon Solar's state of the art equipment, design and technical assistance together with CMC/Sunwell's manufacturing execution and production optimization expertise produces impressive results. The startup of this facility is another example of world class teamwork between Sunwell and Oerlikon Solar.

## **Expansion to over 220 MWp underway**

Two additional Oerlikon Solar end-to-end fab lines have already been purchased by Sunwell. This will increase Sunwell's yearly production capacity to over 220 MWp by 2010. The two new lines, one 60 MWp for the existing site in Taiwan and one 120 MWp for a second location currently under construction, will be based on the latest Oerlikon Solar technology – micromorph® – improving cell efficiency by up to 50 percent.

## TÜV certification as added product value

As announced recently by TÜV Rhineland, one customer of Oerlikon Solar has already been granted IEC 61646 for its amorphous thin film module. TÜV certification provides immediate and significant value to the certificate holder. The time to market for certified modules produced on Oerlikon Solar equipment can be reduced by up to eight months.

Bob Wong: "In addition to reducing time to market, TÜV certification provides us with high level of assurance that modules produced on their equipment will be robustly manufactured." TÜV certified modules are able to command a considerably higher price. In much of the European market, currently the largest market for thin film PV modules, certification is necessary to qualify for renewable incentives.



Page 3 Over 400,000 solar modules manufactured with Oerlikon Solar technology
Since its first customers started mass production in 2007 – an estimated 400,000
modules have been produced on Oerlikon Solar equipment. In addition a rapidly
growing number of customers are in the process of production ramp up. Among
them is Inventux, in Berlin, Germany, who will be introducing the latest Oerlikon
Solar technology, micromorph® tandem to the market in the coming months.
"Oerlikon Solar is the most experienced amorphous thin film supplier in the market.
Our customers' business success depends on our ability to meet performance and
schedule. We've taken our contractual commitments seriously and our track
record is now validating our capability to deliver", says Sargent.

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Oerlikon Solar offers cost-effective, field proven end-to-end solutions for the mass production of thin-film silicon solar modules. These fully automated manufacturing solutions are focused on reducing device cost and maximizing productivity. They are available as modular end-to-end solutions with metrology and upgradeability in throughput and process technology.

Oerlikon Solar has developed a unique and innovative technology based on its leadership in thin film technology and in close cooperation with its customers. An in-house pilot line allows producing, testing and optimizing the solar modules in full production size.

Headquartered in Truebbach, Switzerland, Oerlikon Solar maintains an R&D lab in Europe, as well as global customer support and training through sales and service centers in the United States, Europe and Asia.

#### **About Oerlikon**

Oerlikon (SWX: OERL) is one of the world's most successful high-tech industrial groups specializing in machine and plant engineering. The company is a leader in the field of industrial solutions and innovative technologies for textile manufacture, thin-film solar and thin-film coating, drive, precision and vacuum systems. With roots in Switzerland and a long tradition stretching back 100 years, Oerlikon is a global player with a workforce of more than 19,000 at 170 locations in 35 different countries. The company's sales amounted to CHF 5.6 billion and it ranks either first or second in the respective global markets. In 2007, approx. 5 percent of the turnover was invested in research and development (CHF 274 million).