

## **Thin Film Silicon Mass Production Ahead of Schedule**

### **Sun Well Solar's facility outperforms with Oerlikon Solar's thin film technology**

- First complete end-to-end thin film silicon installation successfully completed
- 40 MW production level reached one month ahead of schedule
- Module power above target
- Oerlikon TCO front and back contact system proven fit for mass production

***Taipei/Taiwan and Trubbach/Switzerland, February 19, 2009* – Oerlikon Solar and Sun Well Solar, a subsidiary of CMC Magnetics, announced today that the ramp-up of the 40 MW amorphous thin film silicon production line has been completed one month ahead of schedule. The installation includes the innovative Oerlikon Solar LPCVD TCO front and back contact technology, which has clearly proven its capability in mass production over the last 6 months. Average module power production yields exceeded contractual targets. The Sun Well IEC certification was accomplished in October 2008. The completion of the Sun Well production ramp-up marks the first successful “end-to-end” installation of a thin film silicon production line within the PV industry.**

Every 50 seconds a PV module leaves the Sun Well Solar manufacturing line, resulting in more than 1,250 panels or 110 kW produced per day. At this stage of the emerging and quickly growing thin film silicon PV industry this output is equivalent to about 10% of the world's module production, making Sun Well one of the largest in Asia. Oerlikon Solar and Sun Well have already announced plans to expand Sun Well's production capacity in the future.

“Our decision to utilize Oerlikon Solar technology has been impressively confirmed by the timely completion of our first thin film production line”, said Bob Wong, Chairman of CMC Magnetics group. “Especially in this challenging market environment, the performance of our production has to be the most cost competitive in the industry.”



Page 2 **Success through cooperation**

Experienced Sun Well engineers were very helpful in resolving critical issues during the ramp up with Oerlikon Solar specialists. Together, the project team was able to achieve all important milestones.

“This was our first end-to-end project and a very visible test of both our technology and our execution capability”, said Jeannine Sargent, CEO of Oerlikon Solar. “The teams exceeded all expectations. I am very proud of their work. Through their efforts we are demonstrating to customers that we can deliver on our promises.”

On this project Oerlikon Solar has implemented a special high performance front and back contact method in its production lines. A Low Pressure Chemical Vapor Deposition (LPCVD) process is used to generate a transparent and conductive Transparent Conductive Oxide (TCO) layer which is superior to conventional methods. The light transmission and scattering properties of this layer are very important for the efficiency, with which the solar module can convert sun light into electric power. The excellent performance of the Sun Well PV modules and the outstanding line productivity clearly demonstrate Oerlikon Solar’s TCO technology mass production is mature and ready for the scale that the industry will demand.

“Just one more milestone in Oerlikon Solar’s mission to make solar power economically viable.”

For further information, please contact:

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*Oerlikon Solar offers field proven equipment and end-to-end manufacturing lines for the mass production of thin film silicon solar modules. Engineered to reduce device cost and maximize productivity, its end-to-end solutions are fully automated, high yield, high uptime, and low maintenance.*

*The production lines are complete systems, yet modular and upgradeable in both throughput and process technology. As a global leader in thin film PV technology, the company provides its customers with extensive experience in both amorphous and high-efficiency micromorph® tandem technology.*

*Oerlikon Solar is headquartered in Truebbach, has over 850 employees in 20 locations world wide and maintains sales and service centers in the USA, Europe, China, Korea, Taiwan and Japan.*

**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 market.*