



Auria Solar Ramps Up 60 MW Micromorph[®] End-to-End Line In Record Time

Auria Solar (Taiwan) unveils the world's first end-to-end solar manufacturing line using Oerlikon Solar's high-performance Micromorph[®] technology

- \$1 per watt production goal in reach through 50 percent gain in cell efficiency and increased output
- Most competitive time-to-market in global thin film PV technology
- High-performance, low-cost solar PV solution established in Asia
- End-to-end line IEC certified by TÜV Rheinland

Tainan (Taiwan)/Trubbach (Switzerland), 24 June 2009. – [Auria Solar](#) today announced to be the first manufacturer to reach the mass production stage with [Oerlikon Solar's](#) industry leading end-to-end manufacturing technology for high efficiency Micromorph[®] thin film silicon solar PV modules. Oerlikon Solar's advanced process integration technology and on-site customer support helped Auria Solar reach the mass production stage, and attain IEC certification from TÜV Rheinland, in record time. Oerlikon Solar and Auria Solar ramped up the entire 60 MW Tainan facility and brought it to mass production in less than eight months after the move-in of equipment.

"Oerlikon Solar was our preferred supplier because of its proven technology, superior panel performance, comprehensive customer service and unmatched track record in delivering the fastest time-to-market. We are extremely impressed with the speed in which Oerlikon Solar's expert team was able to bring our Micromorph[®] end-to-end fab to mass production," says Dr. Chi-Yao Tsai, CEO of Auria Solar. "With our own innovations and state-of-the-art technologies, Auria Solar can already produce modules with 120 W stabilized power output and 9% conversion efficiency. Furthermore, the low-cost manufacturing process enabled through Oerlikon Solar's leading-edge, end-to-end solution will help us reach the target of grid parity in the foreseeable future."

Oerlikon Solar's tandem-junction Micromorph[®] process will enable Auria Solar to produce 60 MW of highly efficient, cost-effective thin film silicon solar PV modules per year. "We congratulate Auria Solar in being the first end-to-end producer of our Micromorph[®] technology. Auria Solar achieved a fast ramp-up of certified high-



Page 2 performance PV modules resulting from our proven end-to-end line solution,” states Jeannine Sargent, CEO of Oerlikon Solar.

Dramatically Accelerated IEC Certification

The TÜV Rheinland IEC master certificate enables Oerlikon Solar’s customers like Auria Solar to accelerate their own IEC certification process, reducing time-to-market for certified high-performance modules from six months to less than six weeks. “We believe Oerlikon Solar is one of the premier equipment and module technology providers in the thin film silicon solar PV market. They have proven their ability to scale world-class technologies and processes to mass production, and passed all of our tests,” stated Willi Vaassen, Head of Renewable Energy division, TÜV Rheinland. The TÜV IEC master certification is valid worldwide and is just one part of the established portfolio of solutions Oerlikon Solar offers its customers to enable rapid ramp-ups to mass production of thin film solar PV modules.

Cost competitive Solar PV solution

Oerlikon Solar’s Micromorph[®] process significantly boosts solar cell efficiency by adding a second microcrystalline absorber to the amorphous silicon (a-Si) layer. This layer converts the energy of the red- and near-infrared spectrum, yielding efficiency and module power gains of up to 50 percent. The Micromorph[®] technology enables module manufacturers to produce thin film silicon solar modules at competitive cost.

Dr. Tsai: “With Auria Solar’s TÜV Rheinland IEC certificate, we are well positioned technically and competitively to compete in the worldwide PV market.” In late 2008, Auria Solar expressed aggressive growth plans to expand its manufacturing capacity to 500 MW by 2012.

“Oerlikon Solar’s competitive time-to-market for the Auria Solar facility is another example of the world-class experience, support and knowledge Oerlikon Solar can offer to all of its customers,” adds Sargent. “We are dedicated to helping make solar PV an economically viable alternative energy option, and our ability to quickly ramp our high-performance Micromorph[®] end-to-end fab illustrates this commitment.”

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