

# UNITED SOLAR OVONIC'S UNIQUE THIN-FILM SOLAR PRODUCTS

*Leading the Way in Volume Production*

At United Solar Ovonic Corp. (United Solar Ovonic), commercializing our continuous web thin-film amorphous silicon solar cell technology is not a goal, it is a reality.

Orders are steadily increasing. Products are being shipped across the globe. The Ovonic proprietary high-output continuous web triple-junction machine manufactures photovoltaics continuously by the mile and by the ton.

The fact that the Ovonic *UNI-SOLAR*® thin-film solar products are

- flexible,
- easy to install,
- lighter and more durable than crystalline products, and
- utilize the available spectrum of light from the sun

results in delivering more energy than crystalline photovoltaics.

In 2004, our Ovonic 25/30MW triple-junction continuous web production machine — designed, engineered, and built by ECD Ovonic's Production Technology & Machine Building Division — permitted us to sell 70% more than we did in 2003. So far in 2005, our machine has enabled us to sell 90% more than the corresponding period in 2004.

Our business is focused on several key markets:

- Today, roofing is a \$21 billion business in the U.S. alone. Our products are ideally suited for integration with the roof. We have formed strategic business alliances with leading roofing contractors and manufacturers here and abroad to offer solar products that can be incorporated into roofs to provide electricity. This has led to major installations in the U.S. and Europe.

The roofs of the world have been considered low technology. With our Ovonic products, they can now become solutions to the global energy crisis, which includes pollution, climate change, and wars over oil.



The Ovonic continuous web triple-junction machine manufactures photovoltaics continuously by the mile and by the ton.



A real-time display in the lobby of the Beijing New Capital Museum shows how much energy the roof is producing and how much pollution it is helping to avoid — a crucial issue in China's major cities.



United Solar Ovonic thin-film solar cell technology is being commercialized on five continents — in everything from residential roofs, to bottling plants, to augmenting power to a six-acre oil field in California.

We are also working on large ground-mounted systems. For example, in California, our Ovonix thin-film products are used to augment power to a six-acre oil field.

We signed a major contract in China to integrate our solar laminates with the roof of the Beijing New Capital Museum, which was installed in 2004. A real-time display in its front lobby shows how much energy the roof is producing and how much pollution it is helping to avoid — a crucial issue in China's major cities.

- Aerospace is another key growth area. The United States Air Force Research Laboratory has selected United Solar Ovonix to develop manufacturing technology for solar cells for high-altitude airships and satellites. Light weight and flexibility are key requirements for these applications, which is why Lockheed Martin has selected United Solar Ovonix in the risk mitigation phase of its *High-Altitude Airship* program. These giant airships, stationary at 70,000 feet above the earth, will play an important role in homeland security by providing continuous surveillance over key trouble spots here and abroad.
- One of the most important aspects of our triple-junction solar technology is the ease in which it breaks up water to provide hydrogen as fuel. *Hydrogen Economy* starts with the energy of our sun, which “burns” hydrogen to give us the photons that provide the energy for the Ovonix thin-film photovoltaics.

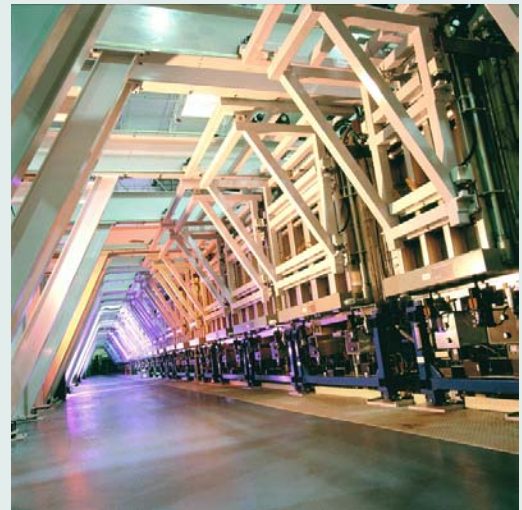
We hold world records in amorphous silicon stabilized energy conversion efficiency and are devoted to the research, development, and commercialization of high-volume, low-cost manufacturing of PV products.

At United Ovonix Solar, our Ovonix thin-film photovoltaics are no longer a technology of the future. The future is *now*.



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United Solar Ovonix's proprietary high-output roll-to-roll machine is developed by ECD Ovonics' Machine Division.



Our environmentally friendly PV product packaging is recyclable, reusable, and disposable. It stacks, packs, and ships easily.