



## News Release

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**FOR IMMEDIATE RELEASE**

**XERO COAT®, INC. ENTERS SOLAR ENERGY MARKET WITH ANTI-REFLECTIVE COATING FOR INCREASING SOLAR SYSTEM CONVERSION EFFICIENCY**

**Maximizes Solar Energy Transmission, Applies Across All Solar Technologies**

REDWOOD CITY, Calif., July 7, 2008— [XeroCoat, Inc.](#), a pioneering Silicon Valley start-up, today officially announced its entry into the [solar energy](#) market. Targeting the solar thermal and solar [photovoltaic](#) segments, XeroCoat designs and manufactures a high-performing [anti-reflective coating](#) for solar energy systems. Applicable across all [solar energy technologies](#), the XeroCoat anti-reflective coating technology can significantly increase [conversion efficiency](#) and, consequently, the power output of solar systems in a very cost-effective manner. XeroCoat's technology offers the advantages of superior solar energy transmission, exceptional durability, and lends itself to [high-volume, low cost manufacturing](#). [Founded](#) by two University of Queensland, Australia researchers, XeroCoat is headquartered in Redwood City, California and also maintains its research and development base in Brisbane, Queensland. The company has an international team of leading optical materials and solar energy scientists and engineers who are focused on continuous innovation of coatings for the solar energy industry. XeroCoat has just signed a contract with a large solar thermal manufacturer to provide the anti-reflective coating for their demonstration line. In addition, the company is actively engaged in demonstrating XeroCoat's technology to several leading photovoltaic module and [solar thermal system](#) manufacturers.

“At XeroCoat, we're strongly committed to making solar energy more affordable for all today,” stated [Tom Hood](#), chief executive officer and president of XeroCoat. “Our customers are aggressively seeking cost-effective solutions to lower manufacturing costs and increase the conversion efficiency of their solar systems. The XeroCoat anti-reflective coating offers a very simple and cost-effective way to get the most power out of the sun. In addition, our ability to partner with solar energy systems manufacturers and glass suppliers allows for great flexibility to control costs and logistics in the supply chain.”

### **Increases Energy Returns, Lowers Manufacturing Costs**

By using the XeroCoat anti-reflective coating on a photovoltaic module, the solar energy reaching the solar cells is increased by as much as 3% at noon and by as much as 6% at early morning and evening hours. This means that solar module makers can expect a 3% increase in power output on a peak watt (Wp) basis, and a 4% increase in

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energy produced on a kilowatt-hour (kWhr) basis. This improvement is equivalent to increasing the efficiency of a solar cell by approximately 0.5-0.75% points, without having to modify the cell or module manufacturing process. For solar system owners, XeroCoat's anti-reflective coating increases the energy output per module, which translates to higher revenue, especially in locations with a feed-in tariff. In addition, because the peak watt per module is higher, fewer modules are needed to achieve the same total solar system watt rating, resulting in balance of system's cost savings.

**Anti-Reflective Coatings Increase Power Output**

The ultimate measure of success for a photovoltaic module is conversion efficiency—the number which tells us how much of the sun's light energy is converted to electricity. Photovoltaic modules suffer from reduced conversion efficiency even before the sun's light reaches the solar cells. This is because the solar module's protective cover glass reflects some of the incident light. For typical glass panels, depending on the time of day, 4% to 15% and more of the incoming light is lost from reflections and, thus, is not available to generate electricity. Applying an anti-reflective coating to the cover glass of the module will reduce these reflections and increase the module's output power. Today, anti-reflective coatings for the solar module cover glass are used in less than 5% of photovoltaic solar systems. Current commercial PV technologies convert 10%-20% of the incoming light to electricity. The same module with a suitable anti-reflective coating can deliver an additional 0.3%-0.6% power conversion. A product achieving higher conversion efficiency in a cost-effective manner can make solar modules more affordable. Delivering high performance requires that the anti-reflective coating reduces reflections and maximizes the solar energy available for conversion into electricity across the broadest range of wavelengths and angles possible. While multi-layer coatings were the traditional solution, they add cost and reflect sunlight more than uncoated glass at certain incident angles. The combination of a single-layer optical coating and graded low-refractive index enables XeroCoat's anti-reflective coating to achieve the highest attainable optical performance for any type of solar cover glass.

**XeroCoat Technology Highlights**

<b>Feature</b>	<b>Benefit</b>	<b>Result</b>
A single-layer optical coating enables <b>superior solar energy transmission over the solar spectrum at broad incident angles</b> to maximize the solar energy available for conversion into electricity.	Increases Wp by 3%. Increases kWhr by 4%.	Higher power conversion efficiency
Rigorous <b>testing</b> to industry and company <b>standards</b> .	Meets IEC 61215 module test standards. Exceeds current industry standards for abrasion resistance.	Durable over the solar module lifetime.
A drop-in replacement. Unique <b>process</b> —a single layer liquid coating step followed by a low temperature curing step.	Does not require changes to existing poly or mono-crystalline module manufacturing process. Lends itself to high-volume, low cost manufacturing as well as thin film processes.	Cost-effective manufacturing.
Uses non-toxic, recyclable coating materials and a low energy manufacturing process.	High material utilization and quick energy payback.	Environmentally friendly process.
The technology is applied to <b>any glass type, size</b> , and from any <b>supplier</b> .	Allows customers to obtain or choose a glass cover solution that combines the best glass with the best coating.	Flexibility to control costs and logistics in the supply chain.
Applicable across <b>all solar energy technologies</b> : Photovoltaic—crystalline, thin film, and concentrating—to solar thermal.	Cost-effectively increases the percentage of solar energy converted to electricity.	Increases solar energy affordability and enables broader market adoption.

XeroCoat was founded by [Dr. Michael Harvey](#) and Associate Professor [Paul Meredith](#) from the University of Queensland, Australia. During the start-up phase, the company was strongly supported by the Queensland Government as recipients of funding under the [Queensland Sustainable Energy Innovation Fund](#) and Innovation Start-Up schemes. Dr. Michael Harvey is XeroCoat’s chief technology officer and is based in the USA. A Smart State Senior Fellow, Associate Professor Meredith is XeroCoat’s vice president for materials development and runs the company’s advanced R&D and technology development program from laboratories at the University of Queensland.

XeroCoat will showcase its product at [Intersolar 2008](#) in San Francisco from July 15-17. The company can be found in the Moscone West Convention Center, Third Hall, Booth Number 9648. In addition, Tom Hood, CEO of XeroCoat, will make a presentation at Intersolar’s [Innovation Exchange](#) on Wednesday, July 16. More information can be found at [www.xerocoat.com](http://www.xerocoat.com).

**About XeroCoat**

XeroCoat is a venture-backed start-up company that designs and manufactures a high-performing anti-reflective coating for solar energy systems. XeroCoat’s innovative technology delivers greater solar energy affordability today by decreasing manufacturing costs for solar module makers and increasing energy returns for solar system owners. Founded in Queensland, Australia and headquartered in Redwood City, California, XeroCoat has an international team of world-class optical materials and solar energy scientists and engineers who are focused on continuous innovation of coating for the solar energy industry. For more information, visit [www.xerocoat.com](http://www.xerocoat.com).

