



GE Sees Bright Future for Thin Film Solar Technology

Increasing Investment in Promising Thin Film Photovoltaic Technology; Engaging Global Resources to Deliver Best-in-Class Product

NISKAYUNA, N.Y.—March 18, 2010—With the race on in earnest to have the most efficient, low-cost solar module on the market, GE (NYSE: GE) announced it is focusing its research and development efforts on thin film photovoltaic (PV) technology in conjunction with PrimeStar Solar Inc., the startup firm in which GE is a majority investor. Working closely with PrimeStar technology experts, the company is bringing to bear the full scale of its four Global Research operations to address each of the challenges required to bring a new product to market.

“After having completed an exhaustive survey of the PV landscape, we determined that thin films were the optimum path for GE,” said Danielle Merfeld, GE’s solar R&D leader. “Specifically, the CdTe technology from PrimeStar has great potential. Bringing together world-class materials expertise, unique materials and systems modeling and design capabilities and state-of-the-art indoor and outdoor solar testing facilities, GE researchers are innovating across our four global research centers—literally around the clock—to deliver a breakthrough product to market.”

The GE/PrimeStar product is being developed at PrimeStar’s headquarters in Arvada, Colo. A team of PrimeStar technologists with more than 100 years of combined thin film deposition expertise is working closely with GE researchers, who are focused on several key areas in order to achieve best-in-class technology. These include device efficiency, reliability, production and installation costs and manufacturability. Hundreds of technologists in Germany, China, India and the United States are working on GE solar technologies today—addressing these challenges in the following ways:

The team in Munich, at the heart of the global solar industry, is utilizing world-class indoor and outdoor solar system test facilities where they study finished module performance to identify and address degradation mechanisms and packaging issues. In addition to the focus on the module itself, this team also brings deep expertise at the system level. This allows them to define system-level optimized features and metrics for the module.

In China, where most of the world’s CdTe raw materials are found, researchers at GE’s China Technology Center in Shanghai are focused on CdTe materials and the impact they have on device performance. Improving material quality and developing advanced materials characterization techniques are key topics being addressed by the Shanghai team.

In India, GE is leveraging extensive modeling capabilities at its John F. Welch Technology Centre in Bangalore. Unlike the exclusively experimental approach favored by many in this field, GE believes that dramatic improvements in the device performance and reliability will be realized through a deeper understanding of the materials and basic physics of the device. The team in Bangalore is tasked with building comprehensive models to help guide advanced device design.

Finally, GE's research team in Niskayuna, N.Y., is working on all facets of CdTe module development, including material growth, device development and robust process development. Their technical expertise cuts across diverse fields such as surface chemistry, laser processing and plasma physics. Equally diverse is their product development experience, which they have derived from GE's other technology-focused businesses such as Healthcare, Lighting and Batteries.

GE currently provides a range of utility-scale solar solutions, including smart grid power electronics and pre-packaged systems. GE's Brilliance™ solar inverter offers reliable power conversion technology derived from its industry-leading 1.5 megawatt wind turbine.

About GE Global Research

GE Global Research is the hub of technology development for all of GE's businesses. Our scientists and engineers redefine what's possible, drive growth for our businesses and find answers to some of the world's toughest problems.

We innovate 24 hours a day, with sites in Niskayuna, N.Y.; Bangalore, India; Shanghai, China; and Munich, Germany. Visit GE Global Research on the web at www.ge.com/research. Connect with our technologists at <http://edisonsdesk.com> and twitter.com/edisonsdesk.

About GE

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GE serves the energy sector by developing and deploying technology that helps make efficient use of natural resources. With 60,000 global employees and 2009 revenues of \$37 billion, GE Energy www.ge.com/energy is one of the world's leading suppliers of power generation and energy delivery technologies. The businesses that comprise GE Energy—GE Power & Water, GE Energy Services and GE Oil & Gas—work together to provide integrated product and service solutions in all areas of the energy industry including coal, oil, natural gas and nuclear energy; renewable resources such as water, wind, solar and biogas; and other alternative fuels.

For more information, visit the company's Web site at www.ge.com. GE is imagination at work.

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