Cambrios Technologies Selects Ascent Solar as PV Partner for Department of Defense Flexible Solar Cell Army Natick Contract

THORNTON, Colo., Apr 12, 2010 (BUSINESS WIRE) -- Ascent Solar Technologies, Inc. (NASDAQGM:ASTI), a developer of state of the art flexible thin-film solar modules, announced today that Cambrios Technologies Corporation, a firm that has developed innovative, wet-processed, transparent conductive films, has selected Ascent as their research partner to investigate how these films can be applied to lightweight, flexible copper-indium-gallium-selenium (CIGS) photovoltaics, which is a topic of a recently-awarded United States Army contract W911QY-BAA-09-11-1 from the U.S. Army's Natick research facility.

As part of the program, which will be undertaken on behalf of the U.S. Army Natick Soldier Research, Development and Engineering Center (NSRDEC), Cambrios will deliver flexible solar cells that incorporate a Cambrios ClearOhm(TM) electrode layer. Because of the material's improved transparency and light handling capability, it is expected that these cells will be 1 to 3 percent more efficient than the equivalent cells made with the conventional transparent electrode material.

"Ascent Solar has very high efficiency CIGS solar cells so they are the perfect partner for this program," said Cambrios CEO Dr. Michael Knapp. "Unlike transparent conductive oxides typically used as thin film solar cell electrodes, Cambrios' ClearOhm (TM) material is also highly flexible. Together our companies have the right technologies to provide the Army with lightweight, flexible CIGS solar cells with better efficiency than what has been possible to date."

The U.S. military is the single largest consumer of energy in the world, and energy supply is an important issue for each and every soldier. Solar energy has been widely deployed by the U.S. military to power permanent and temporary military installations and to reduce the weight carried by soldiers. Flexible PV cells can facilitate the use of this power source by making them more easily deployed on a variety of surfaces such as tents, clothing, and backpacks.

Farhad Moghadam President and CEO of Ascent Solar, stated, "We are pleased that Cambrios selected Ascent Solar as their CIGS partner. Their technology, with its higher optical transmission and improved electrical performance, offers us the potential to enhance the performance of our photovoltaic modules. Combined with the potential to implement direct write deposition technology, it is possible to simplify our manufacturing process. Finally, the performance of their technology matches up well with our future needs in high-performance flexible PV modules."

About Cambrios

Cambrios is an electronic materials company that develops proprietary, competitive products using nanotechnology. Cambrios implements its novel technology to simplify electronics manufacturing processes, improve end-product performance and identify ways to satisfy unmet industry needs. The company's first product is ClearOhm(TM) coating material that produces a transparent, conductive film by wet processing. ClearOhm(TM) films have improved properties by comparison to currently used materials such as indium tin oxide and other transparent conductive oxides. Applications of ClearOhm(TM) coating material include transparent electrodes for touch screens, liquid crystal displays, e-paper, OLED devices, and thin film photovoltaics. Additional information can be found at www.cambrios.com

About Ascent Solar Technologies

Ascent Solar Technologies, Inc. is a developer of thin-film photovoltaic modules with substrate materials that can be more flexible and affordable than most traditional solar panels. Ascent Solar modules can be directly integrated into standard building materials, commercial transportation, space applications, consumer electronics for portable power or configured as stand alone modules for large scale terrestrial deployment. Ascent Solar is headquartered in Thornton, Colo. Additional information can be found at www.ascentsolar.com.

Forward Looking Statements

Statements in this press release that are not statements of historical or current fact constitute "forward-looking statements." Such forward-looking statements involve known and unknown risks, uncertainties and other unknown factors that could cause the Company's actual operating results to be materially different from any historical results or from any future results expressed or implied by such forward-looking statements. In addition to statements that explicitly describe these risks and uncertainties, readers are urged to consider statements that contain terms such as "believes," "belief," "expects," "expect," "intends," "intend,"

"anticipate," "anticipates," "plans," "plan," to be uncertain and forward-looking. The forward-looking statements contained herein are also subject generally to other risks and uncertainties that are described from time to time in the Company's filings with the Securities and Exchange Commission.

SOURCE: Ascent Solar Technologies, Inc.

For Cambrios Technologies Corp.
Missy Bindseil, 830-237-9527
mbindseil@cambrios.com
or
For Ascent Solar Technologies, Inc.
Brian Blackman, 832-515-0928 (Investor Relations)
bblackman@ascentsolar.com
or
Brand Fortified Public Relations
Kelly Brandner, 303-289-4303 (Media)
kellybrandner@msn.com