

U.S. Army Taps Konarka Technologies to Develop New Source of Renewable Power

by Joe Romano

Lowell, MA –August 4, 2003-- Konarka Technologies, Inc., announced the United States Army has funded Konarka to develop the company's photovoltaic technology to provide the Army with a source of lightweight, flexible, scalable and renewable power in a variety of form factors for military applications. Konarka leverages nanotechnology and conducting polymers to provide a source of renewable power. Konarka's technology converts sunlight as well as indoor, artificial light into direct current electrical power. The company uses unique, proprietary low-temperature production methods to put the photovoltaic cells onto flexible, lightweight plastics.

"One of the top concerns in the military is the need to develop ultra-lightweight renewable power for the equipment and electronics that soldiers use, such as displays, computer systems and communications devices," said Mr. Philip Brandler, Director, U.S. Army Natick Soldier Center. "The weight of the batteries that soldiers must now carry is an ever-increasing problem, as the electronics behind future warrior systems become more sophisticated, complex and reliant on portable battery power. As a result, Konarka is an ideal partner to help develop technology that will address this issue, which will mitigate a significant logistics burden and therefore greatly enhance the military's capabilities in the field," he added.

"Today, soldiers use disposable or rechargeable batteries. This presents a serious issue, as rechargeable batteries and necessary backup power supplies are heavy and extremely burdensome to carry," said Dr. Lynne Samuelson, Research Chemist, U.S. Army Natick Soldier Center. "Disposable batteries expose soldiers as they leave a detectable footprint in the field. Konarka addresses the need for lightweight power with its unique cold-sintering process, which allows photovoltaic cell material to be coated onto plastics, as the product's shell becomes a power source," she added. An initial project between the Natick Soldier Center and the University of Massachusetts, Lowell led to a breakthrough chemical process, known as "cold sintering," that resulted in the formation of Konarka. The cold sintering technology facilitates materials processing at relatively low temperatures, which allows Konarka to create photovoltaic cells without exposing the materials to destructive high temperatures in the manufacturing process, enabling Konarka to develop flexible cells on lightweight, flexible materials, rather than on glass or silicon. Under the current program, Konarka will supply prototypes of modules and demonstrate their ability to charge batteries and operate military equipment.

"We take great pride in our partnership with the Natick Soldier Center, as Konarka continues to develop lightweight, flexible, scalable and durable photovoltaic technology for the military," said Dr. Bill Beckenbaugh, President and Chief Executive Officer, Konarka Technologies, Inc. "We envision future uses of the technology will include self-powered electronics, structures, and soldier's uniforms that will generate power," he added. Konarka has also partnered with world-class, global companies such as ChevronTexaco and Eastman Chemical to take Konarka's polymer photovoltaic products to market for commercial, industrial and consumer applications. Some of the markets Konarka will enter include on-board power for portable electronics, off-grid habitation and government applications.

About The Natick Soldier Center, U.S. Army

The Natick Soldier Center (NSC) is located at the U.S. Army Soldier Systems Center in Natick, Massachusetts, under the Army's Research, Development and Engineering Command (RDECOM). The NSC has the dedicated mission to maximize the soldier's survivability, sustainability, mobility, combat effectiveness and quality of life by treating the soldier as a system. Situated near the nation's birthplace of the Army, NSC is the birthplace of the soldier as a system concept.

The NSC performs basic and applied research, technology development and demonstration, and engineering of combat clothing and individual equipment, rations and food service equipment, airdrop systems, shelters, and organizational equipment. They also integrate and transition the technologies for combat-essential elements of command and control, survivability, lethality, sustainability and mobility into the soldier system and warrior systems for other services and agencies.

More information about the NSC can be found at: <http://www.natick.army.mil/soldier/index.htm>

About Konarka Technologies, Inc.

Konarka Technologies, Inc. is the leading developer of polymer photovoltaic products that provide a source of renewable power in a variety of form factors for commercial, industrial, government and consumer applications. Konarka's photovoltaic nanotechnology is focused on delivering lightweight, flexible, scalable and manufacturable products. Konarka has a broad portfolio of patents, technology licenses and a technical team that includes Nobel Laureate Professor Alan Heeger (UC Santa Barbara), Dr. Michael Grätzel (Ecole Polytechnic Fédérale de Lausanne) and Dr. N. Serdar Sariciftci (Johannes Kepler University). Konarka is funded by Draper Fisher Jurvetson, Zero Stage Capital, Ardesta LLC, NGEN, ChevronTexaco and Eastman Chemical Company. Konarka Technologies is headquartered in Lowell, MA and has subsidiaries in Linz, Austria and Zug, Switzerland. For more information, visit www.konarkatech.com or contact Joe Romano, Partner, HighGround, Inc. at 781-279-1320 x 208 or jromano@highgroundinc.com.

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