## August 4, 2003

## Lowell, MA, USA: U.S. Army Taps Konarka Technologies to Develop New Source of Renewable Power

Konarka Technologies, Inc., announced today that 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 Solider 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.

For further information: Konarka Technologies