



Ceramic Technology for Clean Energy

## Press Information

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### **ENrG Inc. Receives NYSEDA Contract for Bi-Electrode Supported Solid Oxide Fuel Cell System**

*High-Efficiency, Alternative Energy Technology Seen as Significant in Meeting Immediate Military Needs And Further Development for Commercial Applications*

**BUFFALO, NY** – ENrG Inc., a high technology firm specializing in the design, development and fabrication of critical ceramic components for clean energy systems, announces that the New York State Energy Research and Development Authority (NYSEDA) has awarded the firm up to \$500,000 on a \$1.4M contract to further advance the development of a bi-electrode supported Solid Oxide Fuel Cell (SOFC) system. Technology for this high power, compact energy source was originally developed by the NASA Glenn Research Center (GRC) in Cleveland, Ohio, and offers the potential of a five-fold improvement in power performance per weight over current SOFC approaches. It also features increased reliability of the fuel cell stack, the electrochemical power-generating unit that is central to the system. ENrG Inc. and NASA GRC will work with Battelle and Ultralife Batteries, Inc. on the commercialization of SOFC based battery charger systems for the military.

This high efficiency, alternative energy technology is uniquely positioned to meet immediate military needs by reducing the amount of fuel to be transported and providing extended performance time.

While the initial market is military applications, ENrG Inc., a company with expertise in fuel cells and product commercialization, intends to use the technology as a building block for commercial applications. The firm will continue working with NASA GRC to transfer the SOFC technology into applications for commercial use.

"This NYSEDA program is a key element in transferring the NASA-developed technology from the laboratory environment into commercial applications," according to Dr. Andrew Eckel of NASA Glenn Research Center. "Additionally, the collaborative agreement continues the development and transfer of supporting technologies important to SOFC and ceramic membrane applications".

"The military has demonstrated increasing demand for on-the-move and stationary power solutions to meet the growing need for battery charging power for C4ISR equipment, field computing and HVAC for Tactical Operations Centers," said John D. Kavazanjian, president and chief executive officer of Ultralife Batteries. "Applying product development experience gained through the Land Warrior and other programs, Ultralife will work with the military to survey and define user requirements. We will then collaborate with ENrG and Battelle to integrate those requirements into the development of an advanced power supply for a tactical field charger to be tested by the US military."

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ENrG Inc. plans to incorporate the technology production process into its current membrane facilities, further advance the processes and manufacturing techniques, and demonstrate low cost manufacturing of SOFC stacks. Previous NYSERDA and National Institute of Standards and Technology Advanced Technology Program investments at ENrG Inc. established the potential for large stationary system fuel cell products and transportation system markets. This latest effort will leverage and expand

ENrG Inc.'s SOFC development and manufacturing capabilities into the military and aeronautic markets.

Peter R. Smith, NYSERDA President and CEO, said, "NYSERDA's contract with ENrG holds great promise for adapting a high-power, high-efficiency compact fuel cell for military and eventually commercial use. Being a Buffalo-based company is great news for New York's economy and our efforts to attract high-tech, clean energy business and development to the Empire State."

"This program is very important to ENrG Inc. and to the successful commercialization of compact SOFC power systems," said John A. Olenick, President, ENrG Inc. "We welcome the opportunity to commercialize this leading edge technology and thank NYSERDA for recognizing its potential with funding support."

### **About ENrG Inc.**

Founded in 2003, ENrG Inc. is a high technology firm that specializes in designing, developing and fabricating critical ceramic components for clean energy systems such as fuel cells, gas separation, and other membrane technologies. Its capabilities include multi-layer ceramic processing, technology transfer, scale-up and manufacturing. ENrG Inc. works with strategic partners and Original Equipment Manufacturers (OEMs) to enable the development and production of high-performance, cost-effective ceramic components for their systems. The Buffalo, NY-based company added a Class 10,000 clean room coating facility in 2006. ENrG Inc. has developed a number of collaborative relationships with key companies in materials, fuel cell and clean energy industries.

Visit [www.enrg-inc.com](http://www.enrg-inc.com) for additional information, or contact John Olenick, President, (716) 390-6740.

### **About NYSERDA**

The New York State Energy Research and Development Authority (NYSERDA) was established by law in 1975 as a public benefits corporation. In 1998, the New York Energy \$mart<sup>sm</sup> program was created to continue energy efficiency, research and development, and environmental protection programs during the State's transition to electric retail competition, and is a key element in the restructuring of New York's electric utility industry. The program offers a wide range of consumer education and assistance programs to bring energy efficiency to homes, businesses, and industry. NYSERDA provides energy-related technical and financial packaging assistance to businesses and institutions to promote energy efficiency and economic development, as well as providing energy research and development programs that promote safe and economical energy production efficiency technologies in New York State. NYSERDA also



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analyzes the effect of New York's energy, regulatory and environmental policies on the State's business, institutional, and residential energy consumers.

### **About Battelle**

Battelle is the world's largest non-profit independent research and development organization, with 20,000 employees in more than 120 locations worldwide, including five national laboratories Battelle manages or co-manages for the U.S. Department of Energy. Headquartered in Columbus, Ohio, Battelle conducts \$3.8 billion in R&D annually through contract research, laboratory management, and technology commercialization. Battelle provides innovative solutions to some of the world's most important problems including global climate change, sustainable energy technologies, high performance materials, next generation healthcare diagnostics and therapeutics, and advanced security solutions for people, infrastructure, and the nation. Battelle has a long history of developing successful commercial products in collaboration with its clients, ranging from products to fight diabetes, cancer, and heart disease to the development of the office copier machine (Xerox). As a non-profit charitable trust with an eye toward the future, Battelle actively supports and promotes science and math education. For more information, visit [www.battelle.org](http://www.battelle.org).

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