

Lockheed Martin To Integrate Fuel Cells, Solar Power For Military Applications Under Contract With Office Of Naval Research

AKRON, Ohio, Aug. 8, 2012 /PRNewswire/ -- Lockheed Martin [NYSE: LMT] secured a contract with the Office of Naval Research for the design and development of solid oxide fuel cell generator set as an alternative to traditional battlefield power generation equipment. Lockheed Martin's fuel cell technology will be integrated with solar panels, providing the military with the power needed to perform missions while using dramatically less fuel.

At the end of the 32-month development program, Lockheed Martin will demonstrate and deliver a multi-kilowatt JP-8 compatible Fuel Cell Efficient Power Node for evaluation by the U.S. Marines. The goal of the approximately \$3 million dollar contract is to reduce overall fuel usage required for tactical electrical generation by 50 percent or more.

More than 100,000 military generators are used worldwide to power services from lighting and air conditioning to computers, radios, and command and control systems. Solid oxide fuel cells convert fuel into electricity using a chemical reaction that is 30 to 50 percent more efficient than the combustion engines used in diesel generators, which are the largest consumers of fuel on the battlefield today. Because fuel cells require less fuel to create the same amount of power, they offer the potential to save billions of dollars in operational costs and to reduce the number of military casualties that are directly related to the delivery of fuel.

"Lockheed Martin shares the U.S. Department of Defense's top goals of increasing the safety of our troops and reducing operational costs," said Dan Heller, vice president of new ventures for Lockheed Martin Mission Systems & Sensors. "Alternative energy solutions, such as the fuel cell we are developing for the Office of Naval Research, can help mitigate these challenges, advancing the strength and flexibility of our military operating in some of the world's toughest conditions."

Lockheed Martin is working with Cleveland-based TMI to mature the fuel cell technology. In addition to Lockheed Martin-funded research and development, this team has received competitive grants from the Ohio Third Frontier, a program committed to creating new technology-based products, companies, industries and jobs. In 2011, Lockheed Martin became the first company to continuously operate a solid oxide fuel cell generator set for over one thousand hours on standard DoD-supplied JP-8, and remains the only company to do so to date.

Headquartered in Bethesda, Md., Lockheed Martin is a global security and aerospace company that employs about 120,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation's net sales for 2011 were \$46.5 billion.

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