



## **Princeton Power Systems Wins Grant from NASA for Highly-Compact Power Converter**

### ***Phase I Small Business Innovative Research Grant to Develop a Configurable DC-DC Transformer***

PRINCETON, NJ, January 19, 2007 – Princeton Power Systems, a developer of advanced electrical power conversion and conditioning technologies, announced the award of a contract from the Goddard Flight Center of the National Aeronautics and Space Administration (NASA) to deliver a small, lightweight power converter for space-based applications. The 6-month project will entail developing detailed designs for three different configurations, and delivering three functional prototypes. If awarded, Phase II of the project would begin in Q3 2007.

“We are confident that our team will leverage our technology base to deliver a state-of-the-art converter that will support NASA’s mission objectives,” remarked Mark Holveck, Chief Technical Officer of Princeton Power. “DC converters are used in multiple systems aboard satellites and other spacecraft, and our easily configurable converter will make it easier to design and maintain these systems, with better efficiency and reduced payload.”

The project involves designing a DC converter that can match different power generation sources, like solar arrays and battery banks, with devices like pumps and fans, to simplify the space-craft’s electric system. The DC converter will take a common 50 VDC input, and be capable of outputting either 1 kV, 5 kV, or 50 kV, depending on the configuration. Different configurations means that this one converter will be compatible with many different systems, which will reduce system complexity and allow for common design modules that will ultimately lead to a more reliable and efficient spacecraft.

In Phase II, the team will deliver form, fit, and function prototypes of the new converter, and begin the rigorous process of testing to extra-terrestrial equipment specifications. Princeton Power’s team has experience building products to similar military specifications for the US Navy. Phase I of the project has an expected completion date of July 23, 2007, at which time a Phase II proposal will be submitted. Phase II, if awarded, is expected to be a 12-24 month effort.

## About NASA

NASA's mission is to pioneer the future in space exploration, scientific discovery, and aeronautics research. NASA conducts its work in four principle organizations, called mission directorates:

[Aeronautics](#): pioneering and proving new flight technologies that improve our ability to explore and which have practical applications on Earth.

[Exploration Systems](#): creating new capabilities for affordable, sustainable human and robotic exploration

[Science](#): exploring the Earth, moon, Mars and beyond; charting the best route of discovery; and reaping the benefits of Earth and space exploration for society.

[Space Operations](#): providing critical enabling technologies for much of the rest of NASA through the space shuttle, the international space station and flight support.

In 2005, NASA's reach spans the universe. Spirit and Opportunity, the [Mars Exploration Rovers](#), are still going on Mars after more than a year. [Cassini](#) is in orbit around Saturn. The [Hubble Space Telescope](#) continues to explore the deepest reaches of the cosmos.

## About Princeton Power Systems

Princeton Power Systems is developing advanced power conversion technologies, including AC-link™ and M-link™, patented control methods that provide a more reliable and cost-effective means for converting electric power cleanly and efficiently. We have developed solutions for industrial motor control, renewable electricity and distributed power generation. Our products reduce industrial energy consumption, lower peak electric usage, and provide clean, renewable energy sources with better performance than other power conversion technologies.

Princeton Power's core products include motor controllers, wind turbine converters, and grid-tied inverters. AC-link and M-link incorporate advanced algorithms for controlling various aspects of the electric power, which allows the use of less- complex, less expensive hardware to achieve precision power control. This makes PPS' devices rugged, reliable and cost-effective, and yields high-quality power waveforms.

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