



## **US Navy Awards Active Transformer SBIR Contract to Princeton Power Systems**

### ***AC-Link Lowers Cost, Increases Efficiency and Reliability***

Princeton, NJ, March 6, 2005 – Princeton Power Systems, a developer of AC-link™ technology for advanced electrical power conversion and conditioning, was awarded a contract with the Office of the Secretary of Defense (OSD) under the Small Business Innovative Research (SBIR) program to design and develop a megawatt-scale AC-link Active Transformer. The Active Transformer is a voltage step-up and step-down transformer for use on aircraft carriers (and potentially other maritime vessels) that embodies several distinct advantages over commonly-used passive transformers.

The initial contract, or Phase I, is for \$99,776 to conduct a 6-month feasibility study, which will look primarily at designs for the critical semiconductor switching components, and the high-frequency, lightweight internal transformer itself.

“Leveraging the flexible, and power dense AC-Link technology for innovative power conversion applications, we are hopeful that the technology will positively impact power density to reduce the weight and the size compared to conventional transformers while maintaining high efficiency and reliability. We are also hopeful, that the Princeton Power design will yield power transformation and electrical system design options for future maritime applications”, stated Mr. Lynn Petersen, Program Officer of the project at the Office of Naval Research.

According to Darren Hammell, Princeton Power's CEO: "Today, transformers are used throughout naval vessels to distribute power for critical applications including propulsion and directed energy weapons. Princeton Power's AC-link technology has the potential to replace existing transformers with a device that is one-quarter as large and weighs less than half as much."

The AC-link Active Transformer will be capable of advanced functionality above and beyond a passive transformer, including power quality correction, dynamic voltage boosting, monitoring and diagnostics, and actively regulating multiple loads. The AC-link Active Transformer will operate at high efficiency and use reliable components and a redundant circuit design.

### **About Princeton Power Systems**

Princeton Power Systems is developing advanced power conversion technologies, including AC-link™, a patented control method that provides a more reliable and cost-effective means for converting electric power cleanly and efficiently. This technology can be used in the industrial motor control, renewable electricity and distributed power generation markets, and will reduce industrial energy consumption, lower peak electric usage, and provide clean, renewable energy sources at a much lower cost than existing power conversion technologies.

Princeton Power's core products include motor controllers, wind turbine converters, and grid-tied inverters. AC-link uses simpler, more reliable components and incorporates 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 AC-link devices rugged, reliable and cost-effective, and yields high-quality power waveforms.

For additional information, please contact:

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