Princeton Power Systems to Develop Revolutionary Silicon Carbide Energy Device

Princeton, NJ, June 29, 2009 — Princeton Power Systems has been selected by the US Navy for negotiation of a $750,000 US SBIR Phase II award (“Reduced Power Electronics Subassemblies Using SiC”) to develop a unique power transformer that will control a megawatt of power within a one cubic meter volume. A key task is the development of a novel silicon carbide semiconductor device that can switch megawatts of electrical power at frequencies of 50,000 Hertz and at 6,000 Volts. This is far in excess of what conventional silicon power transistors can do and represents a leap forward in the status of American-based R&D on both semiconductor materials and devices for energy applications.

Silicon Carbide is a material that has long been used as a cutting material, but is notoriously difficult to fabricate and process as a semiconductor material. Princeton Power will work with United Silicon Carbide, Inc., a leading SiC power device developer located in New Brunswick Technology Center, New Brunswick, NJ, and Prof Jian Zhao, a world expert on SiC devices on sabbatical from Rutgers University, to develop this novel device which will surpass anything now available on the commercial market. At the completion of the program, Princeton Power will have a device for systems that could switch up to a megawatt of power in a volume less than the size of a standard office desk.

According to Darren Hammell, Executive VP, Business Development for PPS, "This US Navy program will enable our company to undertake state-of-the-art semiconductor materials research which will also result in a commercial product offering significant efficiency improvements for alternative energy systems like solar and wind power as well as for conventional electrical systems."

About Princeton Power Systems

Princeton Power Systems is a manufacturer of advanced power conversion products, including AC-linkTM, with patented control methods that provide a more reliable and cost-effective means for converting electric power cleanly and efficiently. We have solutions for motor control, renewable energy, distributed power generation, and military power supplies. Our products reduce energy consumption, lower peak electric usage, and provide clean, renewable energy sources with superior performance.

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