



## **Princeton Power Systems Partners with Princeton University to Win \$529,626 for Solar Power Technology Development**

### ***Award from the New Jersey Commission on Science and Technology for Increasing Solar Power Efficiency through Advanced Inverters***

PRINCETON, NJ, July 13, 2006 – Princeton Power Systems, a developer of AC-link™ technology for advanced electrical power conversion and conditioning, announced the award of a \$529,626 contract from the New Jersey Commission on Science and Technology (NJCST) for improving the efficiency of solar power conversion by developing advanced inverters and control algorithms. Professor Sanjeev Kulkarni in the Electrical Engineering Department and Assistant Professor Clancy Rowley in the Mechanical and Aerospace Engineering Department at Princeton University teamed with Princeton Power on the project, as well as Joseph Montemarano, Industrial Liaison for the University.

“This project represents a landmark pooling of resources between Princeton Power, Princeton University, and the NJCST to raise the efficiency and lower the cost of solar-electric power generation,” remarked Darren Hammell, President and CEO of Princeton Power. “Alternative energy research is critical to both the economy and the environment on a state and international level, and the support of the Commission helps ensure that New Jersey will remain a technology leader in this area.”

The project involves designing an advanced grid-tied inverter and better control algorithms in order to extract more power from a solar array, thus maximizing the array’s efficiency and lowering the cost of the power generated. Professors Kulkarni and Rowley will work with Princeton Power’s engineers to develop an accurate model of the solar array, and algorithms that react to the sunlight, temperature, and other conditions to control the array optimally. As part of the project, Princeton Power will install an array of solar panels on the roof of the University’s Engineering Quadrangle to allow performance testing of the new algorithms and models. The array will consist of the most advanced solar technologies available, including Amorphous Silicon (ASi) “thin film” and traditional Poly-crystalline Silicon (poly-Si) panels. The array will generate enough power to run the equivalent of 2-3 residences.

The NJCST is contributing \$330,958 to the project, while Princeton Power Systems and Princeton University are each contributing \$132,400 and \$66,269 respectively. The project was awarded in July with an expected completion date of June 2008.

### **About the New Jersey Commission on Science and Technology**

Established in 1985, the Commission is responsible for the development and oversight of policies and programs promoting science and technology research and entrepreneurship in New Jersey. Its mission is to encourage economic development and job growth in New Jersey by 1) promoting strong ties between industry and universities in order to accelerate commercialization of technology, 2) supporting entrepreneurial technology businesses in areas of strategic importance to the state, and 3) strengthening research collaborations among universities to create new potential for increased federal funding and private investment.

### **About Princeton University**

Princeton simultaneously strives to be one of the leading research universities and the most outstanding undergraduate college in the world. As a research university, it seeks to achieve the highest levels of distinction in the discovery and transmission of knowledge and understanding, and in the education of graduate students. At the same time, Princeton is distinctive among research universities in its commitment to undergraduate teaching.

The University provides its students with academic, extracurricular and other resources -- in a residential community committed to diversity in its student body, faculty and staff -- that help them achieve at the highest scholarly levels and prepare them for positions of leadership and lives of service in many fields of human endeavor.

Through the scholarship and teaching of its faculty, and the many contributions to society of its alumni, Princeton seeks to fulfill its informal motto: "Princeton in the Nation's Service and in the Service of All Nations."

### **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. These technologies 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 and M-link use simpler, more reliable components and 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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