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Press Release

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FOR IMMEDIATE RELEASE

RER Energy Group Leads the Integration of Solar for the Penn State Emerge Alliance 24 VDC Occupied Space and Micro-Grid Project

Reading, Pennsylvania - April 25, 2013. RER announces completion of Phase II of Penn State Berks 24 VDC Micro-Grid Project. The project has been a combined effort of industry and university partners to explore the use of low-voltage DC indoor power distribution for a variety of commercial, industrial, and residential applications.

The micro-grid project, following standards set by the Emerge Alliance, utilizes the energy savings and flexibility advantages of DC direct power systems. These systems avoid the inefficient and expensive conversion of energy from DC to AC when DC power supply sources are available. DC power is utilized by the end electrical devices, while at the same time integrating battery backup, AC grid or other sources for uninterruptable power supply when needed.

At Penn State Berks, a 24-volt DC ceiling electricity supply system was installed in the Engineering Automation Lab of the Gaige Technology and Business Innovation Building. The room serves as both research and classroom space. With the help of industry partners of the EMerge Alliance® consortium, the laboratory/classroom was converted to use a 24-volt DC system to power its lighting needs. End users can also access the power by connecting devices to the ceiling grid.

The system is partially powered by roof-mounted solar panels. Five 230-watt solar panels were donated by Canadian Solar, Inc. The solar panels were installed by RER Energy Group along with assistance from the Penn State Berks Engineering Automation Lab team.

Nextek Power Systems provided a Maximum Power Point Tracking (MPPT) regulator to condition the solar array output power prior to being applied to the micro grid via the Power Server Module (PSM) auxiliary input. The PSM will provide the additional energy from the AC mains input if the micro-grid load exceeds the energy available from the solar array.

This is the second phase of the three phase project. Phase III will include integrating the batteries into the 24 VDC micro-grid.

About RER Energy Group: RER Energy Group is dedicated to providing cost-effective, high quality renewable energy systems. RER offers solar electric, solar hot water and hot air, biodiesel fuel and waste-to-energy systems throughout the Mid-Atlantic region. The company has developed over 6 megawatts of solar energy systems and obtained over \$12 million of grant proceeds for its clients.