



**PHOTO AVAILABLE: Power and Energy, Inc. Is Awarded Major Contract For Hydrogen Technology Demonstration**

*Office of Naval Research awards \$2.1 M contract for diesel to hydrogen fuel processor*

For Immediate Release

IVYLAND, Penn./EWORLDWIRE/Nov. 9, 2006 --- Power+Energy, Inc. (P+E) has finalized a contract with the DOD's Office of Naval Research (ONR) to demonstrate its fuel processing technology, based on its patented membrane assemblies for the conversion of liquid fuels such as diesel, gasoline and ethanol into ultra pure hydrogen. The system will integrate P+E's membrane reactor into a unified, compact fuel processor that dramatically increases hydrogen recovery rates to unprecedented levels. This technology enables the availability of hydrogen on demand in both large and small quantities for fuel cells and related applications. Under this contract, P+E will deliver a micro-channel membrane reactor with 100 kW power capacity and will demonstrate the efficient transfer of the chemical energy in ethanol to ultra pure hydrogen.

P+E's fueling technology has significant implications for the implementation of fuel cells for vehicle applications as well such as auxiliary/backup power and remote power applications. This fuel processor technology will permit the use of widely available fuels and infrastructures (including high sulfur fuels) without the need for a sulfur removal step. P+E's high efficiency fuel processors in combination with PEM fuel cells can double the useful work derived from a gallon of any liquid fuel including synthetic and bio fuels. It will also reduce carbon dioxide emissions by half and will aid the nation in reducing its dependence on imported oil.

P+E is actively working with a number of leading organizations in integrating fuel cell systems. This includes a series of contracts with the Army Research Office (ARO), DARPA, and the Navy (NAVSEA and ONR) to develop hydrogen separation systems for extracting Hydrogen from Methanol, Ethanol and Diesel fuels. P+E has delivered hydrogen separation systems to the Navy, Battelle and a number of other industry leaders over the past year. The technology is scaleable from small portable systems (50-500 watts) to power plants in the megawatt range. Applications include portable battery chargers, auxiliary and back-up power systems and remote, off-grid power systems.

Power+Energy, Inc., established in 1993, is a privately held firm based near Philadelphia, Pennsylvania. The company develops and manufactures hydrogen purifiers and separators for fuel cell systems as well as a number of applications including semiconductor fabrication, energy research and laboratory applications. P+E has a worldwide customer base and supplies hydrogen purifiers to producers of semiconductors including most major suppliers of high brightness light emitting diodes (LEDs).

For more information, visit [www.powerandenergy.com](http://www.powerandenergy.com).

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**AVAILABLE MEDIA:** : P+E Micro Channel Membrane Separators (size: 0.1 k)  
P+E's micro channel membrane separators are at the core of next generation fuel processors  
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