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**QuantumSphere Develops Renewable Source of Power to Supply World's Energy Needs for Wide Variety of Applications**

*QuantumSphere to Reduce Cost of Producing Hydrogen PEM Fuel Cells Predominantly Used to Power Cars and Trucks by 75%*

FOR IMMEDIATE RELEASE

**COSTA MESA, CA, U.S.A. –September 13, 2004--** QuantumSphere, Inc., today announced it has completed the buildout of a large-scale reactor for the production of nanonickel (n-Ni) that will be used to produce a renewable source of power to supply the world's energy needs. Some of the markets QuantumSphere will enter include: power for automobiles; remote, portable, and distributed power generation; residential, industrial and commercial power systems; heavy equipment; consumer electronics; and other government and military applications. The use of nanonickel to manufacture hydrogen fuel provides a source of renewable, pollution-free power that can be made from seawater and, after used, produces clean water as a byproduct. The news follows QuantumSphere's previous announcement that it opened an expanded manufacturing facility in response to demand for the company's nanoaluminum (n-Al) powder for breakthrough applications in the aerospace and defense markets.

“There is an inordinate amount of talk in the industry about the promise of using nanonickel to manufacture hydrogen fuel, but there is a gaping problem in the industry. Nobody can *produce* extremely high-quality nanonickel material for advanced applications,” said Kevin Maloney, CEO, QuantumSphere, Inc. “The geopolitical ramifications regarding the production of nanonickel for a new source of power are immense. Overdependence on oil from the Middle East and other foreign sources places our national security at risk when the United States enters or quells conflicts in other lands to ensure America has ready access to supply our energy needs. According to the National Energy Foundation, U.S. trade balance sheets show that oil imports drain \$1 billion from the U.S. economy every week. The use of new sources of power will go a long way to help alleviate some of these problems,” Maloney added.

“As the automotive and heavy equipment industries begin to adopt hydrogen fuel cells on a wider scale, companies will experience a dire need to dramatically reduce the cost of producing hydrogen fuel cells and increase their durability,” said Dr. Douglas Carpenter, Chief Scientific Officer and Director of Research and Development, QuantumSphere, Inc. “As QuantumSphere begins to manufacture commercial quantities of nanonickel in the first quarter of next year, companies will use our nanonickel powder to reduce the cost of producing hydrogen PEM fuel cells by 75%, which are predominantly used to power cars and trucks. Nanonickel applications will also vastly improve the efficiencies of storing and generating new sources of power in a wide variety of other industries as well,” Dr. Carpenter added.

#### **About QuantumSphere, Inc.**

QuantumSphere manufactures leading metallic nanopowders for breakthrough propellants, munitions and other energetic applications in the aerospace, defense, energy and other markets demanding advanced material applications. QuantumSphere’s exclusive manufacturing process provides: consistent, narrow particle size distribution; low level of agglomeration and impurities; custom-tailored oxide shell thickness; and the highest purity metallic nanopowders on the market that are easier to transport and handle. The company manufactures the highest quality of metallic nanopowder in the industry without compromising its commitment to the environment.

No other company offers these performance advantages, as QuantumSphere has a 2-year lead ahead of its competitors. The company will leverage its leading market position in nanoaluminum (n-Al) to introduce nanonickel (n-Ni) applications for fuel cells, and other applications including additives for plastics and electromagnetic frequency shielding applications.

For more information, visit [www.qsinano.com](http://www.qsinano.com) or contact Joe Romano, Partner, HighGround, Inc. at 781-279-1320 x 208 or [jromano@highgroundinc.com](mailto:jromano@highgroundinc.com)