

For Immediate Release

Membrane Reactor Technologies (MRT) to work with BOC and HERA on DOE Hydrogen Energy Project

Vancouver, British Columbia, Canada, 6 December 2004 - Membrane Reactor Technologies (MRT), a privately held designer and developer of hydrogen generation and purification systems, will participate in a major DOE sponsored project to develop an advanced hydrogen generation and delivery system.

The grant for a 3-year, US\$3.8 million project, is part of a \$75 million research effort announced by DOE to support US President Bush's Hydrogen Fuel Initiative. Through the DOE, the U.S. government is trying to stimulate research and development on hydrogen production and delivery technologies.

The project, which was recently awarded to the BOC-led team, will result in almost US\$1.7m coming to MRT to develop and demonstrate advanced hydrogen generation and delivery systems, in cooperation with BOC and HERA Hydrogen Storage Systems (HERA). The goal of the program is to accelerate commercialisation of hydrogen generation and supply systems for transportation, power and industrial uses.

Dr. John Grace, Chairman of MRT said "This co-operative project adds value to all of the partners and will move MRT rapidly towards commercializing its technology. We are grateful to DOE for their support which illustrates that Canada-US Energy Partnerships are already a reality."

"Working with the BOC and HERA to address the economic and technical challenges of delivering low-cost high-purity hydrogen to vehicles and stationary power plants will significantly expand the product offerings and shorten the development times for MRT," added Michael Rushton, President and C.E.O. of Membrane Reactor Technologies Ltd.

"MRT and HERA have technologies that are both unique and advanced. We believe integrating their offerings will provide a step-change in high-pressure H₂ production. BOC is in an excellent position to help develop a solution that has customer needs at the forefront of its design," said BOC's Michael McGowan, Marketing Manager for Hydrogen Energy.

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Links:

Membrane Reactor Technologies	http://www.membranereactor.com
The BOC Group	http://www.boc.com
Hera Hydrogen	http://www.herahydrogen.com
U.S. DOE	http://www.energy.gov

About Membrane Reactor Technologies

MRT is a Vancouver-based private company focused on creating opportunities for customers and partners to use hydrogen more profitably. The company's patented Membrane Reactor process combines the reforming of hydrocarbons, shift conversion and the purification of hydrogen in one simple, cost-effective step. The system achieves higher yields of pure hydrogen than conventional reformers, delivers very high-purity hydrogen and scales from small laboratory sizes to large industrial applications. Proven fluidised-bed, membrane and gasification technologies are applied by MRT in novel ways to produce hydrogen and carbon dioxide from many renewable and sustainable feedstocks including natural gas, propane, syn-gas, coal and biogases from digesters and methane collectors. The company's hydrogen separation membrane technology is being applied to develop a range of purifiers to recover and purify hydrogen in industrial and energy applications

Note to Editors:

HERA is a private company whose major investors include Shell Hydrogen and Hydro-Québec CapiTech. HERA develops hydride materials, nano-catalysts and hydride-based products for hydrogen storage and for other applications in the automotive and hydrogen distribution markets. It leverages its skills, expertise and intellectual property in the research and development of products which include heating/cooling systems for automotive applications, advanced batteries for hybrid electric vehicles, and hydrogen compression and storage systems for existing industrial applications and for the Hydrogen Economy. HERA is based in Longueuil, Canada, a suburb of Montréal, and has a subsidiary, HERA USA Inc. in Ringwood, New Jersey, U.S.A. (formerly the business of Ergenics Inc.). For further information, please visit www.herahydrogen.com.

The BOC Group (NYSE:BOX), the worldwide industrial gases, vacuum technologies and distribution services company, serves two million customers in more than 50 countries. It employs over 43,000 people and had annual sales of over \$8.3 billion in 2004. Further information about The BOC Group may be obtained on the Internet at www.boc.com and www.fuelcellmarkets.com

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