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## **Research & Commercialization Board Announces 2011 Awards**

(HELENA) – The Montana Board of Research and Commercialization Technology recently announced funding of two research grants totaling \$220,163. The awards are for projects in Helena and Butte.

“It is very important for Montana to support research and commercialization projects that will help to develop the state’s economy,” said Dore Schwinden, Director of the Montana Department of Commerce. “These grants will make Montana more competitive in the global marketplace.”

The Board supports economic development by investing in research projects that have a clear path to commercialization. It has funded 183 research projects totaling \$36.8 million since 2001. The Board is administratively attached to the Montana Department of Commerce.

“We are pleased to announce that the Research and Commercialization Technology program has funded two new projects,” said Dave Desch, Executive Director of the Board. “These, and previously funded projects have the potential to significantly impact Montana’s opportunities for economic growth.”

“These newly awarded projects will receive additional matching funds as leverage,” said Schwinden. “Since the program’s inception, Board funded projects have leveraged over \$42 million in matching funds and have attracted over \$270 million in follow-on funding. These projects are an investment in Montana’s technology future and in the tech

companies that develop around this research activity.”

**The grant awardees are:**

**Development of Commercially Viable Metallic Nanoparticle Filter to Remove Mercury from Coal Fired Power Plant Flue Gas - Montana Tech of the University of Montana – Butte - \$87,163**

The goal of this research is to test a metallic nanoparticle filter to remove mercury from flue gas including coal fired power plants. Testing the filter in a coal fired power plant flue will provide the necessary information for full-scale system design and allow the evaluation of the commercial viability of the filters. The tremendous surface area provided by the porous ceramic material incorporated with nanoparticles has the potential to make this a viable cost-effective mercury removal system. The commercial potential of a mercury control device in the United States alone is over \$3 billion. Montana has large coal deposits and the United States has significant amounts of coal resources that will continue to be used for power generation. Successful commercialization of the filter could result in significant revenues for a Montana company.

**Zilo™ - Prototype Section Module of the Mid-Size Wind Turbine – Exergy Integrated Systems – Helena - \$133,000**

The project is to assemble, install, and demonstrate the effectiveness of an innovative wind turbine, the Zilo™, on a site in the Great Falls area. Testing of the wind turbine will begin next year. The Zilo™ is designed to meet a multi-billion dollar market for an affordable, accessible, visually and environmentally acceptable, and radar-compatible mid-size (500kW) wind turbine. The Zilo™ concept has been under development since 2005, and the MBRCT-funded demonstration of a single-section prototype is a crucial step in the transition to its successful commercialization. Exergy Integrated Systems, a Montana company headed by CEO James Carkulis and President Peggy Beltrone, plans to fabricate the turbines in a Great Falls facility and reach full production by 2015, providing well-paying jobs for a community whose economic future is tied increasingly to renewable energy development.

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