

## Floating Wind Generators – more Cost- and Energy Efficient than Standard Wind Turbines

**Lighter-than-air tethered wind turbines generate renewable electrical energy with cost and performance advantages over conventional systems.**

This innovative system, launched in January 2006 by the Canadian company Magenn Rotational Energy, aims to disrupt the electric utility industry, producing energy at up to 50 percent greater efficiency and at a cost lower than that of existing wind turbines.

The Magenn Air Rotor System (MARS) rotates about a horizontal axis in response to wind, generating electrical energy. This electrical energy is transferred down the tether for consumption, or to a set of batteries or the power grid. Helium sustains MARS, which ascends to an altitude selected by the operator for the best winds. Its rotation provides additional lift, keeps the device stabilised, positioned within a controlled and restricted location, and causes it to pull up overhead.

Benefits of MARS over conventional wind turbines include:

- Lower electricity production cost (<0.7 cents per kWh).
- Bird and bat friendly.
- Low noise emissions.
- Operation over a wide range of wind speeds.
- Operation at high altitudes from 400 to 1,000 feet above ground, possible without towers.
- Mobility.



Magenn has already announced a distribution agreement with a leading clean power product marketing company, targeting various applications for MARS, such as:

- Off grid use for cottages and remote sites such as cell towers and exploration equipment.
- Applications in developing countries with limited infrastructure.
- Rapid deployment (including airdrops) to disaster areas for power to emergency and medical equipment, water pumps, and relief efforts (e.g. Tsunami).
- Military applications.

At a time when wind turbines are getting taller, as wind speed increases with altitude, the concept of flying windmills is becoming more and more popular and other companies worldwide are already working on developing flying electrical generators.

Source:

Magenn's website <http://www.magenn.com/>

Contact:

Mr. Mike Brown,  
Magenn rotational energy  
E-mail: [mike.brown@magenn.com](mailto:mike.brown@magenn.com)  
Tel.: + 151 613 733 8488