

Altaeros Energies Poised to Break World Record with Alaska High Altitude Wind Turbine

First long-term demonstration of an airborne wind turbine funded by Alaska Energy Authority.

Boston, MA – March 21, 2014 - Altaeros Energies, a wind energy company formed out of MIT, announced that its Alaska demonstration project is set to break the world record for the highest wind turbine ever deployed. The \$1.3 million, eighteen-month project will deploy the Altaeros BAT at a height 1,000 feet above ground.



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The BAT (Buoyant Airborne Turbine) project, partially financed by the Alaska Energy Authority's Emerging Energy Technology Fund, will be the first long-term demonstration of an airborne wind turbine. The project is currently being permitted for a site south of Fairbanks.

Altaeros recently received additional funding from RNT Associates International Pte Limited, a company owned and controlled by Mr. Ratan N Tata, former Chairman of the Tata Group. Tata Power, a Tata Group subsidiary, is the leading developer of wind energy projects in India.

"We are pleased to work with the Alaska Energy Authority and TDX Power to deploy our flexible, low cost power solution for remote communities," stated Ben Glass, Altaeros Chief Executive Officer. "The project will generate enough energy to power over a dozen homes. The BAT can be transported and setup without the need for large cranes, towers, or underground foundations that have hampered past wind projects."

At a height of 1,000 feet, the BAT commercial-scale pilot project in Alaska will be over 275 feet taller than the current record holder for the highest wind turbine, the Vestas V164-8.0-MW. Vestas recently installed its first prototype at the Danish National Test Center for Large Wind Turbines in Østerild, with a hub height of 460 feet and blade tips that stretch over 720 feet high.





Altaeros has designed the BAT to generate consistent, low cost energy for the \$17 billion remote power and microgrid market, which is currently served by expensive diesel generators. Target customers include remote and island communities; oil & gas, mining, agriculture, and telecommunication firms; disaster relief organizations; and military bases.

The BAT uses a helium-filled, inflatable shell to lift to high altitudes where winds are stronger and more consistent than those reached by traditional tower-mounted turbines. High strength tethers hold the BAT steady and send electricity down to the ground. The lifting technology is adapted from aerostats, industrial cousins of blimps, which have lifted heavy communications equipment into the air for decades. Aerostats are rated to survive hurricane-level winds and have safety features that ensure a slow descent to the ground. In 2013, Altaeros successfully tested a BAT prototype in 45 mph winds and at a height of 500 feet at its test site in Maine.

Investment into the high altitude wind sector has recently gained momentum with the acquisition of U.S.-based Makani Power by Google in 2013. Recent investment in EU airborne wind energy companies has included 3M's funding of Nature Technology Systems (Germany), DSM Venturing's funding of SkySails (Germany), KLM Royal Dutch Airlines' funding of Ampyx Power (The Netherlands), and Sabic Ventures' funding of KiteGen (Italy).

For more information, hi resolution photos, or a demonstration video of the BAT in action, please visit www.altaiosenergies.com or email info@altaiosenergies.com.



Computer rendering (top) and prototype (bottom) of Altaeros BAT (©Valentin Angerer Photographer 2013, Altaeros Energies 2013)

About Altaeros: Altaeros Energies was founded in 2010 at the Massachusetts Institute of Technology to harness high altitude winds to deploy low cost power. Altaeros won the 2011 ConocoPhillips Energy Prize, and has been funded by the U.S. Department of Agriculture and National Science Foundation Small Business Innovation Research programs. Additional support has come from the Alaska Energy Authority, the California Energy Commission, the Maine Technology Institute, and the Massachusetts Clean Energy Center. Altaeros has operations in Somerville, Massachusetts; Limestone, Maine; and Rio Negrinho, Brazil.

