

Going for the record

Altaeros Energies to attempt wind power generation at 1,000 feet with Alaska High Altitude Wind Turbine

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.

At a height of 1,000 feet, the BAT (Buoyant Airborne Turbine) 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.

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.

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.

“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.”

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.

For more information, or to view a demonstration video, visit www.altaerosenergies.com.

