

## ENERKITE - WIND ENERGY REDEFINED

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Most of today's wind turbines supply their rated output less than a quarter of time. EnerKites will deliver rated power onshore and offshore at least fifty percent of the time.

The presentation will introduce the EnerKite company, its concepts and products towards the next generation of wind power plants. Founded on 20 years of experience and excellence in the field of wind energy, flight mechanics and control as well as kite technology and automation a mobile 30 kW prototype plant is under development. Particular test rigs are developed in order to derive feasible and sustainable solutions.

With one million load cycles and more the lines of YoYo- and ground actuated systems suffer from significant fatigue. The EnerKite rope test rig allows to perform highly dynamic and frequent bending and tension tests. The results are determining the rope, drum and sheave design. By means of windtunnel tests the properties of ropes and air-foils are investigated and optimized.

Using rapid prototyping and newest design methods the EnerKite Experimental Power Plant will be accomplished and operated in the very near future.

This allows to demonstrate and further develop the prototype of the EnerKite Control Unit and the first generation of EnerKites - reinforced and optimized for stronger loads, energy production and automated flights.



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# EnerKite