Kitepower Unveils Ecospeed Software for Innovative Kite-Driven System Reducing Carbon Emissions

Startup for innovative wind energy use utilizes Ecospeed software for tracking the Carbon Footprint

Amazing, but true: This is how one can generate (wind) energy for around 100 households.

ZURICH, SWITZERLAND, July 3, 2023 /EINPresswire.com/ -- The Dutch startup Kitepower has developed a giant kite that can produce electricity for about 100 households - with much less structural and construction effort than a conventional wind energy plant and also with a much smaller CO2 footprint. This can be proven and documented with Ecospeed software for determining the "Product Carbon Footprint".

A tower, a gondola, three rotors: This is the basic and widely used concept of a wind energy plant. A Dutch startup has developed a completely different way of generating electricity via wind power. The fact that one of the two founders is an enthusiastic kite surfer gives a clue to the new concept, as does the company name "Kitepower".

The idea: A kite of about 60 m2 is attached to a ground station, housed in a 20" container, via a controllable rope. It is steered in such a way that it reaches the end point of the rope deflection in eight loop-shaped movements. Once there, it is reeled in by a winch and led back to the peak point in a loop shape. This movement cycle takes about 100 seconds, and the motor/generator needs about 20% of the generated ener-gy for reeling in. The main share of 80% can be fed into the grid as electricity or consumed on site.

In this way, a single Falcon-Kite generates around 450 MWh of energy per year. This is enough for about a hundred households, around the clock - with minimal space, material use, and service effort.

Since the concept was developed for sparsely populated island and coastal locations where wind is often prevalent, resource-saving energy supply is ensured. And it offers further advantages. Johannes Peschel, one of the two founders: "A kite plant is mobile. It doesn't need foundations, can be quickly put into operation on site, and is also suitable for integration into hybrid stations with diesel generators and batter-ies. Temporary operation, for example in humanitarian missions or at events like festivals, is also conceivable."

Initial tests on the Caribbean island of Aruba proved the concept's functionality and also convinced further investors, who joined Kitepower in a new financing round at the beginning of 2023. Johannes Peschel: "We are currently preparing an initial small series of Falcon systems. For this purpose, the plant will undergo a continuous test in Ireland at the end of 2023 - in cooperation with an Irish energy supply company."

As part of the preparations for series production, the "Carbon Footprint" of a kite wind plant is also determined. Johannes Peschel: "In some countries, including the Netherlands, the manufacturer of an energy generation plant has to prove in a benchmark with other solutions that his concept has the most favorable CO2 footprint. There's no doubt that we easily meet this requirement compared to a conven-tional wind energy plant and with a photovoltaic plant or diesel generators. But we still need to specify it."

To be able to fulfill this task, Kitepower has acquired a license for Ecospeed AG's software for determining the Product Carbon Footprint (PCF): "We were convinced by the software because it is easy to use and maps all our requirements - also with regard to international markets. We will determine the PCF of both a pure kite plant and a plant with battery buffer and also use the software to further optimize the plants with regard to the CO2 footprint." The Kitepower founders see the network-ing capability of the software as another advantage: For example, data sets can be incorporated into documentations and shared with planners, operators, and certifica-tion companies.

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