

## Press release

# RWE Renewables and SkySails Power harness high-altitude winds for innovative power generation

- **Partners enter collaboration agreement on first permanent operation in Germany**
- **Pilot project to deliver important insights into innovative technology**

Essen/Hamburg, 26 January 2021

RWE Renewables GmbH and SkySails Power GmbH have high-flying ambitions. They are planning to fly a 120-sqm kite to a height of up to 400 metres above ground to utilise high-altitude winds for generating electricity. The two companies have now entered a collaboration agreement on this pilot project. RWE is purchasing an innovative airborne wind energy system with an output of up to 200 kilowatts from the Hamburg-based company. RWE Renewables will operate the SkySails Power system and evaluate the technology during the three-year pilot project. Currently, suitable locations in Germany are being assessed.

Airborne wind energy systems harness the strong and steady winds at heights of several hundred metres above ground. Part of the SkySails Power system is a ground station consisting of a winch with an integrated generator. During its ascent in a controlled trajectory, the kite pulls rope from the winch – and the built-in generator produces electricity from the rotational energy.

Once the tether is completely unspooled, the kite is winched back in. It brings itself automatically into a position of very low resistance so that it can be hauled back easily. The generator now acts as a motor operating the winch. This process only requires a fraction of the energy that has been generated during the active phase. The cycle can then start over again.

Current airborne wind systems have a maximum capacity of 100 to 200 kilowatts. Developing this technology further will increase the potential output from kilowatts to megawatts and thus make it attractive for use in large wind farms. SkySails is already developing such a large-scale system.

“The light compact design of airborne wind energy systems means that the impact on people and the environment is minimal. The systems work very quietly, practically have no visible effect on the landscape and barely cast a shadow”, explains Stephan Wrage, CEO of SkySails Power GmbH. He believes that these benefits can further increase acceptance for wind energy systems. Stephan Wrage: “This makes our SkySails technology an exciting alternative to traditional renewable wind power generation.”

“I am delighted that we are putting this innovative, environmentally friendly technology into operation for the first time,” says Katja Wünschel, COO Wind Onshore & Photovoltaic Europe & Asia-Pacific at RWE Renewables. “It has the potential for onshore as well as offshore use and to complement conventional wind power turbines in this way.” Sven Utermöhlen, her colleague on the RWE Renewables Management Board with responsibility for Wind Offshore Global, adds: “This pilot project is not just intended to expand the decentralised supply of energy from renewable sources, it also has great potential in terms of helping RWE to make its power generation completely climate-neutral by 2040.”

SkySails on YouTube: <https://www.youtube.com/channel/UCu2pzFUfgE7mcCCLmGYc4rQ>.

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**RWE Renewables**

*RWE Renewables is one of the world's leading renewable energy companies. With around 3,500 employees, the company has onshore and offshore wind farms, photovoltaic plants and battery storage facilities with a combined capacity of approximately 9 gigawatts. RWE Renewables is driving the expansion of renewable energy in more than 15 countries on four continents. By the end of 2022, RWE Renewables targets to invest €5 billion net in renewable energy and to grow its renewables portfolio to 13 gigawatts of net capacity. Beyond this, the company plans to further grow in wind and solar power. The focus is on the Americas, the core markets in Europe and the Asia-Pacific region.*

**SkySails**

*SkySails Power GmbH develops and markets systems for generating electricity from high-altitude wind - so-called airborne wind energy systems. SkySails power kites are the key technology for this next generation of wind power. The company draws on the experience and expertise of its parent company SkySails Group GmbH, developer of the well-known SkySails wind propulsion system for cargo ships. SkySails is the first company in the world to have succeeded in developing power kite technology on an industrial level with kites of up to 400 m<sup>2</sup> in size, delivering up to 2,000 kW of power. The SkySails technology is patented worldwide, and the company has access to a strong network of strategic partners. Find out more at <https://www.skysails-power.com/>.*

## **German General Data Protection Regulation (GDPR)**

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