

Joint Research Project SkyPower100



PRESS RELEASE

Wind energy of the future: Research project on the use of high-altitude wind

Project partners SkySails Power, EnBW, EWE OSS and Leibniz University Hannover develop and test pilot system „SkyPower100“

Hamburg, Karlsruhe, Hannover, Oldenburg / Germany, 21 June 2018. As a joint project partnership SkySails Power GmbH, EnBW Energie Baden-Württemberg AG, EWE Offshore Service & Solutions GmbH and Leibniz University Hannover are developing and testing a fully automated airborne wind energy system.

Flying systems such as e.g. kites can harness renewable power in higher air layers where higher energy and more stable wind speeds prevail. High-altitude wind technology could thus become a pioneering supplement to conventional wind energy use. The objective of the research project "SkyPower100", which is funded by the Federal Ministry for Economic Affairs and Energy (BMWi), is to develop and test a fully automated airborne wind energy system with a nominal output of 100 kilowatts by 2020. The system is intended to work autonomously and start, land and stow the kite by itself. It shall prove these skills for several months. During this pilot operation, the consortium intends to gain insights into the scaling of high-altitude wind power technology into the megawatt class on shore. On top of that, it wants to further improve the efficiency and reliability of the technology for future offshore use.

SkySails Power GmbH coordinates the project and contributes the know-how and operational experience in the field of automated kite systems. It is responsible for the development, production, installation and testing of the pilot system. EWE Offshore Service & Solution GmbH is responsible for the site search, project planning, approval, development, foundation as well as for the grid connection of the demonstrator. The Karlsruhe-based energy company EnBW Energie Baden-Württemberg AG is investigating the potential for high-altitude wind in the target markets and the respective approval situation in the project. The Institute of Propulsion Systems and Power Electronics of the Leibniz University Hannover is responsible for the design and the investigation of the powertrain.

Further information on the project "SkyPower100" is available at:

www.skypower100.de

Photos and footage of the functional model can be downloaded at:

<https://www.skypower100.de/english/photos-footage/>

Supported by:



on the basis of a decision by the German Bundestag

Joint Research Project SkyPower100

SkySails Power GmbH
(Project coordination)
Luisenweg 40
20537 Hamburg / Germany

EnBW
Energie Baden-Württemberg AG
Durlacher Allee 93
76131 Karlsruhe / Germany

Leibniz Universität Hannover -
Institut für Antriebssysteme und
Leistungselektronik
Welfengarten 1
30167 Hannover / Germany

EWE Offshore
Service & Solutions GmbH
Donnerschwer Str. 22-26
26123 Oldenburg / Germany

Joint Research Project SkyPower100



Press Contact:

SkySails Power GmbH (Project Coordination)
Luisenweg 40
20537 Hamburg / Germany
E-Mail: press@skysails.com
Phone: +49 40 702 99 444

About SkySails Power GmbH

SkySails Power GmbH develops and markets systems for power generation from high-altitude wind - so-called airborne wind energy systems. SkySails kites are the key technology for this next generation of wind power.

The company draws on the more than 17 years of experience and expertise of its parent company SkySails Group GmbH, which has developed the well-known SkySails wind propulsion system for cargo ships. SkySails is the first company in the world that has succeeded in developing the towing kite technology into an industrial application with up to 400m² of kites capable of delivering up to 2,000kW of propulsion power.

The SkySails technology is patented worldwide and the company has access to a strong network of strategic partners.

For further information, please visit: www.skysails-power.com

About EWE Offshore Service & Solutions GmbH

As a service company, EWE OSS advises, accompanies and supports its customers in offshore wind farm projects and offers solutions with proven 360 ° experience of the EWE Group. The planning and realization as well as the operation of an offshore plant are complex tasks which require sound specialized knowledge and many years of experience.

In the meantime, the company, founded in 2012, has developed from a pioneer to an experienced player in the offshore industry at home and abroad. The interdisciplinary team currently consists of around 60 offshore specialists, working among others for the alpha ventus, Riffgat, Gemini and Trianel wind farm projects Borkum I & II. EWE OSS is a subsidiary of EWE AG.

For further information, please visit: www.ewe-oss.de and www.ewe.com.

Joint Research Project SkyPower100

SkySails Power GmbH
(Project coordination)
Luisenweg 40
20537 Hamburg / Germany

EnBW
Energie Baden-Württemberg AG
Durlacher Allee 93
76131 Karlsruhe / Germany

Leibniz Universität Hannover -
Institut für Antriebssysteme und
Leistungselektronik
Welfengarten 1
30167 Hannover / Germany

EWE Offshore
Service & Solutions GmbH
Donnerschweer Str. 22-26
26123 Oldenburg / Germany

Joint Research Project SkyPower100



About EnBW Energie Baden-Württemberg AG

With more than 21,000 employees, EnBW Energie Baden-Württemberg AG is one of the largest utilities in Germany and Europe and supplies around 5.5 million customers with electricity, gas and water as well as with energy solutions and energy services.

As early as 2013, EnBW responded to the fundamental changes by the German energy transition with a far-reaching restructuring of the company. The strategy EnBW 2020 provides for expanding renewable energies to one of the main pillars of the EnBW business by the year 2020. In addition, EnBW will increasingly strengthen its position as a sustainable and innovative infrastructure partner for customers, citizens and municipalities.

For further information, please visit: <https://www.enbw.com/>

About Leibniz University Hannover - Institute for Drive Systems and Power Electronics

Based in the Institute for Drive Systems and Power Electronics (IAL) approximately 45 scientific employees conduct research under the direction of Prof. Dr.-Ing. Axel Mertens and Prof. Dr.-Ing. Bernd Ponick. They cover the entire field of electric drive technology from the microwatt to the multi-megawatt range with regards to electrical machines and drive systems, power electronics and drive control.

The work focuses on the development of analytical and numerical calculation methods for electrical machines, the simulation of transient processes in electric drives, the electrical, electromagnetic and thermal design of drive systems and the control of drives.

For further information, please visit: <https://www.ial.uni-hannover.de/265.html?&L=1>

Joint Research Project SkyPower100

SkySails Power GmbH
(Project coordination)
Luisenweg 40
20537 Hamburg / Germany

EnBW
Energie Baden-Württemberg AG
Durlacher Allee 93
76131 Karlsruhe / Germany

Leibniz Universität Hannover -
Institut für Antriebssysteme und
Leistungselektronik
Welfengarten 1
30167 Hannover / Germany

EWE Offshore
Service & Solutions GmbH
Donnerschweer Str. 22-26
26123 Oldenburg / Germany
