

SolarSpring contracted for MD lab system used in cutting edge offshore hydrogen generation project

The Karlsruhe Institute of Technology (KIT) placed an order with SolarSpring for the refurbishment and upgrade of a membrane distillation (MD) lab system with a contract value of 24,655 €. The system is to be used within the project H2Mare funded by the German Ministry of Education and Research (BMBF).

Offshore conditions are highly favorable for wind energy plants as they produce a higher and more constant electrical output at sea. This energy can be used, for example, for the production of green hydrogen, arguably one of the future's most important power fuels. However, hydrogen production requires highly pure water as a resource – not easy to come by in the middle of the ocean. This is where membrane distillation comes in.

SolarSpring GmbH, as a world leader for membrane distillation, has been contracted by the Karlsruhe Institute of Technology (KIT) for a MD lab system refurbishment and upgrade at a purchase order amount of 24.655 €. The system is to be used for experimental studies on the generation of ultrapure water from seawater within the project H2Mare (<u>https://www.wasserstoff-leitprojekte.de/leitprojekte/h2mare</u>) funded by the German Ministry of Education and Research (BMBF). The offshore generation of hydrogen will significantly cut the costs of green hydrogen production as the efficiency of the wind energy plants are higher at sea and the energy is used directly at source, eliminating all grid costs and losses. Furthermore, hydrogen generation produces a significant amount of waste heat. This heat can be used to power the membrane distillation process for the supply of ultrapure water needed in the hydrogen production unit. In summary, the use of membrane distillation in conjunction with offshore wind can lead to a very efficient hydrogen production cycle with a low impact on the environment.

The quickly rising demand for green hydrogen replacing fossil fuels opens a huge market for the membrane distillation technology of SolarSpring.

Contact information:

Clean Industry Solutions Holding Europe AB c/o Win-Win Ekonomi AB Palmfeltsvägen 21 SE-121 62 Johanneshov/Sweden E-Mail: info@cleanindustrysolutions.com

Amudova AB is Clean Industry Solutions' certified adviser. Phone +46 8 546 017 58 E-mail: info@amudova.se



About Us

Clean Industry Solutions Holding Europe AB holds 100% of Industrial Solar GmbH and 100% of SolarSpring GmbH - both located in Freiburg/Germany.

Industrial Solar GmbH is an international leading technology and solution provider, which develops projects mainly based on its innovative Fresnel collector technology suitable for fulfilling an expected growing market of solar process heat. As a one-stop-shop Industrial Solar offers turnkey solutions for customers in several industries.

Find out more about Industrial Solar GmbH at the following address:

https://www.industrial-solar.de/

Founded in 2009 as a spin-off of the Fraunhofer ISE, SolarSpring GmbH - membrane solutions, has evolved into an international pioneer in the field of membrane distillation offering innovative waste- and drinking water treatment technology.

Find out more about SolarSpring GmbH at the following address: https://www.solarspring.de/

Attachments

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