05/09/2018

Launch of Haeolus, a consortium that will build the world's largest remotely controllable hydrogen-wind plant

The European consortium of SINTEF, Université Bourgogne Franche-Comté, Hydrogenics, Tecnalia, University of Sannio, Varanger Kraft and KES will deliver a fully functioning 2.5 MW electrolyser plant, directly connected to a 45 MW wind farm, and demonstrate its operation.

Varanger Kraft's wind farm, located in Raggovidda, Norway, is one of the most remote and efficient in all of Europe. However, due to the insufficiently developed transmission grid in the region, the project development license of 200 MW cannot be fully exploited. To circumvent this problem, Haeolus will enable the company to produce clean hydrogen using excess power solely produced from wind from Raggovidda.

> "Varanger Kraft is located in an area, which probably has some of the best wind conditions on planet Earth. Seeking to utilize this wind, we have for years investigated the opportunities to produce hydrogen, based on renewable, ultra-green wind power. We are pleased to join our partners in the Haeolus project on the subject, for which we have high expectations." – Terje Skansen, CEO of Varanger Kraft.

Hydrogenics' highly flexible electrolysers will be installed in the wind farm and enable hydrogen-wind integration. Several control strategies will be developed to produce hydrogen while making much higher rates of renewable energy penetration possible in the European grid. Haeolus' demonstration will be completely remotely controlled and monitored, due to the remoteness of the wind farm and its difficult accessibility in winter, when the area is covered by a thick snow layer.

> "We are very pleased to collaborate with the other partners of the Haeolus project, in which we are going to test a new fast reacting 2.5 MW PEM electrolyser under the very extreme conditions of Norway." – Daryl Wilson, CEO of Hydrogenics.

Exploitation and business aspects will also be considered, with a special focus on business cases for the valorization of the produced hydrogen and oxygen.

Contact: Federico Zenith, SINTEF (project coordinator) – +47 930 53 023 – federico.zenith@sintef.no

Project website: http://www.haeolus.eu

This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking under grant agreement No. 779469. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation program and Hydrogen Europe Industry and Hydrogen Europe Research.