Denmark's first large-scale electrolyser module delivered

The European project GreenHyScale has begun the installation process of a 6 MW prototype electrolyser in the Danish green industrial park, GreenLab. The installation is an important step towards production of green hydrogen on a large-scale globally.

A milestone in the green transition was reached on March 31 when a 6MW test module for Power-to-X production was delivered to the green industrial park, GreenLab in Skive, Denmark. The 70-ton prototype electrolyser is developed by the Danish cleantech company Green Hydrogen Systems, and it represents the physical evidence that the pioneering Power-to-X technology has taken an important step towards large-scale green hydrogen production .

Step 1 of 100MW

The electrolyser prototype and test module is the first piece of what is planned to be a 100 MW Power-to-X plant. The project partners in the GreenHyScale project, funded by the European Union, expect the 100MW plant to be replicable to the rest of the world, thus paving the way for greener energy production globally. Christopher Sorensen, CEO of GreenLab, is thrilled to welcome the test module to the industrial park:

"This is a milestone we have worked hard for with our international partners. Power-to-X is not only a promising technology in terms of a cleaner way to produce and store energy, but also a cornerstone in the energy system of the future, where sector coupling is crucial. At GreenLab, the Power-to-X facility will be fully integrated with our SymbiosisNet to utilise the outputs in our green industrial cluster. Our unique infrastructure enables companies to re-apply their excess energy streams, and the excess heat from the PtX facility will also be utilised for a new district heating system for the local communities," says Christopher Sorensen, CEO at GreenLab.

Viable hydrogen infrastructure

The chosen core Power-to-X technology is a X-Series prototype electrolyser from Green Hydrogen Systems – a modular pressurised alkaline electrolyser technology that can be multi-stacked. The delivery of the X-Series prototype and test module in Skive is a milestone in the GreenHyScale project.

"The installation for tests and validations of our prototype at GreenLab in Skive is the next step in the product maturity of our X-Series electrolyser. This step supports the GreenHyScale project development and Green Hydrogen Systems efforts in advancing a prototype electrolyser towards a commercially viable product," says Sebastian Koks Andreassen, CEO Green Hydrogen Systems.

Hydrogen for a greener future

The GreenHyScale project is supported with funding from the European Union's Horizon 2020 programme with EUR 30 million. The installation process of the 6 MW prototype module in Skive is expected to be ready for testing by the end of Q2 2023.

The GreenHyScale project began in 2021 and will run until September 2026. The consortium partners are: GreenLab Skive A/S, Green Hydrogen Systems A/S, Lhyfe, Siemens Gamesa Renewable Energy, Equinor Energy AS, DTU, Imperial College London, Everfuel, Quantafuel, Euroquality and Energy Cluster Denmark. More information about the project can be found at www.greenhyscale.eu

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