

Neovolt enters collaboration with Woikoski: Finland to become the frontrunner in hydrogen technology

LUT University spin-off Neovolt Oy has signed a co-operation agreement with Finnish Woikoski Oy to develop hydrogen production technology. The joint project is built upon world-class research with unique aspects on improving hydrogen production efficiency.

The scope of the project is for Neovolt to analyze the energy efficiency of Woikoski's Kokkola water electrolyser unit and propose actions to improve it. Neovolt will analyze the whole hydrogen production process providing improved control and operability for both the electrochemical process and power grid side. The analysis provides a unique angle to improve efficiency and minimize the production cost of hydrogen. By optimizing the plant operation, the lifetime of the water electrolyser unit can be maximized.

Woikoski chose Neovolt as a partner to improve energy efficiency of their existing hydrogen production unit. Moreover, Woikoski wants to gain better understanding of the energy utilization of their system. The hydrogen production unit of Woikoski constitutes a notable portion of their electricity use, making this analysis highly valuable.

Woikoski Technical Director **Mr. Olli Bergmann** comments that Neovolt has the knowledge to support Woikoski's efforts on optimizing the hydrogen production process and analysis of its energy consumption. We are confident that through collaboration we gain valuable information and action proposals that will lead to improvements in our competitiveness in this developing hydrogen market.

According to Neovolt CEO **Mr. Samuli Räisänen**, Finland already has very advanced research and business in the hydrogen production sector. One of Neovolt's primary goals is to connect research and business to commercialize latest research findings in this field. We are targeting Finland to become the leader in hydrogen technology.

The 9 MW alkaline electrolyser production unit of Woikoski Oy was one of the biggest in its class in Europe when commissioned in Kokkola, Finland, in 2014. The hydrogen unit has three lines with annual total hydrogen production volume of 14 million normal cubic meters.

From research into business

Neovolt Oy was founded in spring 2021 to develop and deliver modern power supply and control solutions for green hydrogen production. The mission of the company is to maximize the profitability of green hydrogen production. Neovolt offers customers a better understanding on hydrogen production process and its requirements on power supply systems. The founding team of Neovolt has an extensive experience from both academic research on water electrolysis and power electronics industry.

The current project with Woikoski is a part of Neovolt Engineering Services where Neovolt applies its knowledge on existing hydrogen production units and provides customers information on improving efficiency of their existing system and consulting on the energy efficiency of future hydrogen production projects.

For more information:

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