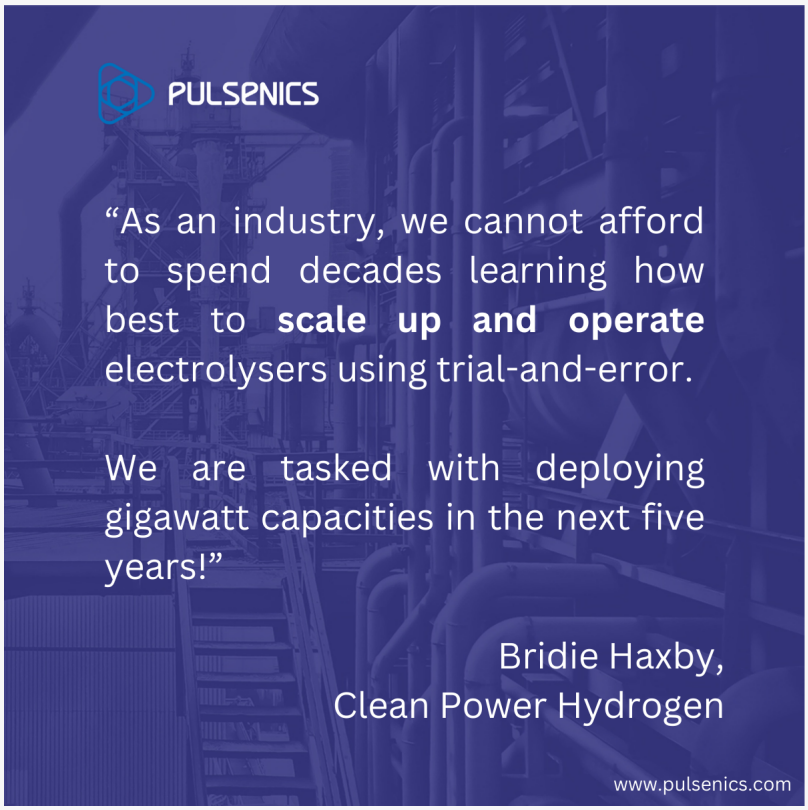
Pulsenics and CPH2: Advancing the Industrialization of Membrane-Free Hydrogen Electrolysers

Pulsenics sits down with CPH2's Bridie Haxby to discuss stack impedance testing for green hydrogen production. Read the entire interview at www.pulsenics.com.



TORONTO, ONTARIO, CANADA, March 19, 2024 /EINPresswire.com/ -- Pulsenics and UK-based electrolyser developer, Clean Power Hydrogen (CPH2), have joined efforts to accelerate the industrialization of green hydrogen production through advancements in the performance evaluation of CPH2's membrane-free electrolysers.

This collaboration is focused on replacing traditional destructive and manual performance testing methods for electrolysers with Pulsenics' impedance-based cell and stack testing capabilities.

In an in-depth interview, Bridie Haxby, Laboratory Supervisor in the R&D department of CPH2, sheds light on the impact of extracting impedance data from CPH2's novel electrolyser designs on accelerating the industrialization of their membrane-free electrolysers.

The Advantages of Membrane-Free Electrolysis:
Haxby introduces CPH2's membrane-free electrolyser, "The membrane-free electrolyser is our key product at CPH2 and represents the heart of our electrolyser plants. It is novel and holds potential for longer lifetimes and more efficient energy consumption, crucial for scaling up in the industry."

Optimizing Electrolyser Performance with CPH2:

CPH2 focuses on maximizing stack current density to enhance efficiency for green hydrogen production. “Improving the performance of our electrolysers centers around optimizing our stack’s current density, leading to a lower capital expenditure and reduced operating costs for our clients,” Haxby explains.

Pulsenics’ Role in Advancing Electrolyser Technology:
“As an industry, we cannot afford to spend decades learning how best to scale up and operate electrolysers using trial-and-error. We are tasked with deploying gigawatt capacities in the next five years!” describes Haxby.

The urgency in deploying efficient green hydrogen solutions is at the heart of the collaboration with Pulsenics.

Haxby describes the necessity of this partnership, “Evaluating the effects of design choices on electrolyser performance for industrial R&D teams has always required extensive time. Our collaboration with Pulsenics, with their philosophy of quantifiable, real-time, non-destructive testing, has significantly accelerated our testing processes.”

Innovations from Impedance-Based Stacking Testing:
The impedance-based testing by Pulsenics has contributed to actionable insights for informing CPH2’s electrolyser scale-up and operations. Haxby notes, “With Pulsenics, we were able to extract performance data on each of the components within our cells while operating under real conditions. This has allowed us to quantify the effects of various parameters on the performance of each of our cells, saving months’ worth of data analysis.”

The Path to Enhanced Electrolyser Technology:
The collaboration represents a significant stride in the development of membrane-free electrolyser technology using data-driven methodologies. “Working with Pulsenics is a testament to the power of collaboration in delivering innovating advancements toward electrifying our industries,” concludes Haxby.

Please visit www.pulsenics.com to read the in-depth interview in its entirety.

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