



Fusion Fuel Announces Entry into Centralized PEM Electrolyzer Market with HEVO-Chain Solution

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Revolutionary new design builds on HEVO architecture, dramatically expanding addressable market and unlocking new commercial applications

SABUGO, Portugal, Nov. 23, 2022 (GLOBE NEWSWIRE) -- [Fusion Fuel](#) (Nasdaq: HTOO) announced today its entry into the centralized electrolyzer market with the introduction of its HEVO-Chain solution.

The HEVO-Chain is a revolutionary innovation in the design of centralized PEM electrolyzers. Rather than relying on a traditional cell-stack, the HEVO-Chain builds off Fusion Fuel's proprietary HEVO architecture, enabling the system to operate at higher efficiency – roughly 49 kWh / kg of hydrogen – and avoid the losses that stem from more conventional electrolyzer stack designs.

Each HEVO-Chain hydrogen unit consists of 16 HEVO micro-electrolyzers interconnected along a string, representing 11.2 kW of electrolysis capacity and outputting 5.6 kg of hydrogen per day at a pressure of 4 bar. A planned second-generation unit is expected to increase the pressure at the outlet to 20-30 bar, among additional improvements. As with the HEVO-Solar, the HEVO-Chain was built with modularity and scalability in mind – it is designed for a standard 19" rack cabinet, allowing for up to eight units to be integrated seamlessly alongside the power electronics and water purification system. The HEVO-Chain is currently undergoing comprehensive performance and reliability testing. The company expects the first HEVO-Chain units to enter commercial use in 2024.

Jaime Silva, Chief Technology Officer of Fusion Fuel, noted, "We are extremely excited to introduce the HEVO-Chain, an innovation which represents the culmination of more than two years of hard work by our R&D and Engineering teams. Building on the radically different concept of allowing each membrane to operate independently and having multiple electrochemical cells in simultaneous operation, the system is engineered to operate with lower power requirements and cheaper power systems than existing solutions."

Frederico Figueira de Chaves, Co-Head of Fusion Fuel, commented, "The HEVO-Chain is proof that our modular approach – combining many units, manufactured in highly efficient, automated production processes – is the key to driving down capital costs for centralized PEM systems. This radically different approach only further differentiates Fusion Fuel from the rest of the market."

Zach Steele, Co-Head of Fusion Fuel, added, "In conjunction with the HEVO-Solar – our fully integrated, off-grid solar-to-hydrogen generator – we are now positioned to deliver green hydrogen solutions for every customer in every market. This solution is infinitely scalable, able to operate as a single HEVO-Chain unit or multi-megawatt containerized solution. With the addition of the HEVO-Chain, we now can offer a full-suite of best-in-class electrolyzer solutions designed to meet any size demand, capable of using any source of renewable electricity, and in any geography around the globe. This offering firmly positions Fusion Fuel as a global leader in the green hydrogen ecosystem and will help accelerate the transition to hydrogen as a broad-based energy source."

About Fusion Fuel

Fusion Fuel is an emerging leader in the green hydrogen sector committed to accelerating the energy transition through the development of disruptive, clean hydrogen solutions. Fusion Fuel has created a modular, integrated solar-to-hydrogen generator, powered by a proprietary miniaturized PEM electrolyzer, that enables off-grid production of green hydrogen. Its business lines include the sale of electrolyzer technology to customers interested in building their own green hydrogen production, the development of turnkey hydrogen plants to be owned and operated by Fusion Fuel, and the sale of green hydrogen as a commodity to end-users through long-term hydrogen purchase agreements. For more information, please visit <https://www.fusion-fuel.eu>

Forward Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that are not historical facts. The words "believe," "may," "estimate," "continue," "anticipate," "intend," "should," "plan," "could," "target," "potential," "is likely," "will," "expect" and similar expressions, as they relate to us, are intended to identify forward-looking statements. Fusion Fuel has based these forward-looking statements largely on its current expectations and projections about future events and financial trends that Fusion Fuel believes may affect its financial condition, results of operations, business strategy and financial needs. Such forward-looking statements are subject to risks (including those set forth in Fusion Fuel's Annual Report on Form 20-F, filed with the Securities and Exchange Commission on May 2, 2022) and uncertainties which could cause actual results to differ from the forward-looking statements. Any forward-looking statement made by Fusion Fuel herein speaks only as of the date on which it is made. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for Fusion Fuel to predict all of them. Fusion Fuel undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.

HEVO-Chain Render



Render of Fusion Fuel's HEVO-Chain hydrogen unit

HEVO-Chain



Image of Fusion Fuel's HEVO-Chain hydrogen unit

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Photos accompanying this announcement are available at:

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