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HELION Hydrogen Power Signs Strategic Partnership Agreement with M REFORMER

- HELION Hydrogen Power and M REFORMER announce the signing of an innovative strategic partnership focused on coupling proton exchange membrane fuel cell technology with methanol reformers.
- This agreement marks a key milestone in the development of sustainable solutions for energy storage.
- By using green hydrogen derived from methanol, this project will be addressing one of the biggest constraints of storage: the amount of usable energy for the clients.

28 January 2025 - HELION Hydrogen Power (a subsidiary of the Alstom Group) announces the signature of a Strategic Partnership Agreement with M REFORMER. As part of this partnership, HELION, a manufacturer of high-power fuel cells, aims to demonstrate that its systems are compatible with hydrogen produced from methanol. HELION will provide a 100kW fuel cell that will be paired with M Reformer's E-NOMAD system. The demonstration will take place at M Reformer's industrial site in Molins de Rey, near Barcelona.

A Partnership for a Sustainable Future

The coupling of hydrogen fuel cells with methanol reformers represents a significant advancement toward sustainable energy solutions. Methanol-hydrogen generators enable the production of high-quality hydrogen, which is essential for the proper operation of a fuel cell.

By combining the two systems, HELION and M Reformer aim to highlight the importance of using hydrogen vectors in liquid form to meet strong customer demand for increased on-site energy storage capacity. "This strategic partnership constitutes a decisive step in our product development strategy, laying the groundwork for the multi-vector H2 function of our systems. By using green hydrogen derived from methanol, we are addressing one of the biggest constraints of storage: the amount of usable energy for our clients," said Vincent Mahéo, President of HELION. "We are committed to supporting the adoption of this future technology by reducing the barriers related to hydrogen storage that currently hinder its widespread use," he concluded.

This Strategic Partnership Agreement with HELION Hydrogen Power reaffirms M Reformer's commitment to methanol reforming technology

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as a real, viable solution available to everyone, eliminating existing barriers to the storage and transport of Hydrogen.

For M Reformer, this collaboration with a leading company such as HELION Hydrogen Power is an honor, with the aim of demonstrating the compatibility of M Reformer's E-NOMAD, a system completely designed by M Reformer for the generation of off-grid electrical energy. This collaboration will demonstrate the compatibility of both systems, creating a present validation and a future collaboration in the following evolutions of the system for stationary and mobile applications.

For M Reformer, this opportunity is once again a demonstration of the potential of Green Molecules, especially Methanol, to be a clear bet in this transition towards the decarbonization of our society.

Using green hydrogen derived from methanol reforming solves the major constraints regarding the storage and transport of hydrogen, and hydrogen production is carried out not only at the point of consumption but also at the time of consumption.

“Our commitment to green molecules, especially methanol, is maximum, as demonstrated by all those clients who have already trusted in the products designed by M Reformer. I cannot be prouder of this great opportunity provided by HELION to demonstrate the compatibility of our system with their technology and with the desire for future joint collaborations in new designs for the applications in which they are leaders in the various sectors,” said Javier Torres, Managing Director of M Reformer.

About M Reformer: M Reformer specializes in hydrogen generation through methanol-reforming technology, designed by Element 1 Corp. Its cutting-edge solutions for mobile and stationary applications provide decentralized hydrogen and electricity, reducing emissions and contributing to a more sustainable society with green methanol. M Reformer's mission is to offer an efficient solution to the logistics and storage challenges of hydrogen by converting methanol into hydrogen where it is needed.

About HELION Hydrogen Power: Based in Aix-en-Provence and a subsidiary of the ALSTOM Group, HELION has been designing, manufacturing, and commercializing fuel cells for over 24 years for the heavy mobility and stationary sectors. HELION offers alternative solutions to diesel engines for trains, construction machinery, and vessels. Its hydrogen powered generators can also replace diesel generators used for stationary applications (continuous power for remote sites, grid support, backup power) to decarbonize the construction,

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telecommunications, data centers, ports, and airports sectors, among others.

About Alstom: Alstom commits to contribute to a low carbon future by developing and promoting innovative and sustainable transportation solutions that people enjoy riding. From high-speed trains, metros, monorails, trams, to turnkey systems, services, infrastructure, signalling and digital mobility, Alstom offers its diverse customers the broadest portfolio in the industry. With its presence in 64 countries and a talent base of over 84,700 people from 184 nationalities, the company focuses its design, innovation, and project management skills to where mobility solutions are needed most. Listed in France, Alstom generated revenues of €17.6 billion for the fiscal year ending on 31 March 2024.

For more information, please visit www.alstom.com

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