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PRESS RELEASE

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STARTUP H2FCB HYDROGEN
SYSTEM.DOCX

ELSA Solutions completes the startup of the first hydrogen system for the cogeneration of heat H2FCB and power energy

[Hylife Innovations](#), a prominent Dutch innovative greentech company, together with [ELSA Solutions](#), has successfully completed the startup of the H2FCB hydrogen system to power a residential district. The project began in 2022 and reached completion in only 18 months.

The hydrogen system and LiFePo4 lithium battery, whose design and protection, are made entirely by ELSA Solutions internal team. Thanks to the important collaboration agreement with hydrogen fuel cell supplier [Loop Energy](#), they are now able to commence operation by supplying electricity and thermal energy.



The system is used to power and manage the electric and thermal utilities of a residential district and will be installed in [Stad aan 't Haringvliet, The Netherlands](#).

Furthermore, the high level of engineering applied has made it possible to maximize the efficiency of the system by reusing the thermal energy generated by the fuel cell in order to manage loads such as heating of the living units.

In the installation carried out in the Netherlands, there are electrolyzers capable of generating 100% renewable green hydrogen and stocking it during the summer season thanks to the overproduction of energy generated by the photovoltaic panels.

Manu Bracke, Director Operations at Hylife Innovations, said **“Smart energy hubs will play a crucial role in our future energy system to provide decentral flexibility and balancing services. The integrated battery-fuel cell system provides fast response in combination with long duration for the power supply of the connected buildings. Overall efficiency is high because heat is recuperated for heating purposes. The aliant team has done an excellent job delivering high quality integration and service to Hylife.”**

“This pilot plant is the culmination of a very challenging project started 18 months ago”- commented Eng. Matteo Presutti, who has been following the Hydrogen project in-house together with a team of electronic engineers, pioneers in lithium storage systems since as far back as 2009 - ***“that has seen us involved in coordinating companies from different countries, active in this new technology that is entering the market and could be a Game Changer. Personally and professionally it is a great challenge but also a great opportunity for growth.”***

“The pilot project in question is only the first milestone of a very long path that will see us put effort into the development and engineering of a family of hydrogen Range Extenders, intended for stationary applications mainly” - Davide Dal Pozzo also declare - ***“with the hope that hydrogen can contribute significantly to reducing the world's dependence on NATURAL GAS and fossil sources, and thus with the clear goal of DECARBONIZATION.”***

The project was completed thanks to the collaboration with partners who supported the complete system development, especially Loop Energy.

“Loop Energy is proud to collaborate with ELSA Solutions to produce an innovative stationary genset solution that has the potential to serve a wide range of industries,” said Luigi Fusi, Vice President of Sales EMEAR at Loop Energy, ***“Hydrogen fuel cell technology can replace diesel generators in providing reliable power to applications in remote or difficult-to-access sites. We look forward to seeing ELSA Solutions customers adopt this technology in the field to reduce greenhouse gas emissions. ”***

The hydrogen fuel cell system manufactured in Canada by Loop Energy is available in power sizes of 30, 50, 60 and 120 kW; this will allow the development of an entire family of hydrogen generator sets with scalable powers and capacities depending on needs and applications.