

Haffner Energy successfully commissioned its hydrogen-from-biomass production unit in Marolles, France

In a breakthrough for the hydrogen industry, Haffner Energy successfully launched continuous hydrogen production from biomass, with its proprietary technology

VITRY-LE-FRANÇOIS, FRANCE, February 26, 2025 /EINPresswire.com/ -- • Commissioning of the world's first plant producing hydrogen from solid biomass at the Marolles site (Champagne region, France).



The industry faces significant delays due to the excessive cost of decarbonized H₂. We are confident our solution will accelerate the adoption of renewable H₂ and enhance the sector's competitiveness."

Philippe Haffner, co-founder and CEO

- Unique thermochemical process that significantly reduces green hydrogen costs.
- "Super green" hydrogen available for commercial use beginning the second half of 2025.

Haffner Energy (ISIN: FR0014007ND6 – Ticker: ALHAF) announces the commencement of hydrogen production utilizing its proprietary solid biomass thermolysis technology at its Marolles hydrogen production, testing, and training center, as was announced in the 12/17/2024

press release. This unique technology enables the production of renewable hydrogen at a substantially lower cost compared to conventional methods, while offering an unparalleled carbon footprint.

"Achieving the continuous production of competitive green hydrogen is a decisive step. Currently, the industry faces significant delays due to the excessive cost of decarbonized hydrogen. We are confident that our solution will accelerate the adoption of renewable hydrogen and enhance the sector's competitiveness. I want to congratulate the Haffner Energy team and our partners for this remarkable achievement, ushering the company into a new era," stated Philippe Haffner, Co-founder and CEO of Haffner Energy.

A Flexible and Economically Advantageous Production Model

The site's production capacity will be 15 kg of hydrogen per hour (kg/h), with an initial phase temporarily limited to 11 kg/h due to the existing PSA (Pressure Swing Adsorption) purification equipment. This equipment will be replaced in the coming months by a PSA designed to reach a 15 kg/h capacity. The unit already produces hydrogen at 8 bar pressure, ready for commercial distribution starting in the second half of 2025 to serve transportation and industrial markets.



Haffner Energy's center of hydrogen production, testing and training in Vitry-Marolles industrial zone.

Anticipated since late 2024, this commissioning required the site to be connected to the medium-voltage electrical grid, which was completed earlier this year, followed by the on-site presence of commissioning engineers focused on the main equipment suppliers for hydrogen purification.

The biomass thermolysis unit, operational since June 2024, exceeds the capacity required to produce 15 kg/h of hydrogen. The new PSA, already received by Haffner Energy, will be complemented by a compressor reaching 35 bar pressure, supplying an H14 distribution station provided by HRS.

Marolles is designed to operate 8,000 hours per year. As part of this site's operations, 120 metric tons of mobility-grade hydrogen per year (15 kg/hour) will be produced, contributing to the decarbonization of mobility and industry. This is equivalent to 12 million kilometers traveled with hydrogen vehicles. Approximately 2,400 metric tons of CO₂ per year will be avoided or captured through hydrogen and biocarbon (char or biochar) combined.

A memorandum of understanding for the offtake has been signed for the supply of 90 tonnes of hydrogen per year, mainly for mobility applications, which is designed to ensure a commercial outlet within the next few months.

Hydrogen Production from Residual Solid Biomass: A Game Changer

The scaling up of Haffner Energy's proprietary biomass thermolysis technology is poised to disrupt the global and French renewable hydrogen markets, facilitating accelerated commercial and industrial development. This technology offers several key advantages:

- Economically Competitive Solution: Already capable of competing with gray hydrogen for installations of 20 MW and above – a feat far from achievable by alternative technologies.
- Economic Model Based on Low-Cost Biomass Energy: Hydrogen from biomass thermolysis is significantly cheaper to produce than hydrogen from the electrolysis of water thanks to low primary energy costs (<30€/MWh and often even <20€/MWh, compared with >70€/MWh for decarbonized electricity) and optimal energy efficiency (generally >70%).
- Independence from the Electrical Grid: Unlike electrolysis, thermolysis is minimally dependent on electricity availability and cost, ensuring stable and predictable production.
- Negative Carbon Footprint: This technology sequesters biogenic carbon through biochar co-production, achieving a negative carbon footprint when considering the full LCA.
- Flexible Sourcing: This biomass-agnostic technology is able to utilize various residual biomasses, in particular from agriculture, ensuring greater autonomy and resilience against feedstock market fluctuations while significantly expanding available resources.

Towards Commercial and Industrial Expansion

The commissioning of the Marolles unit marks a strategic milestone for Haffner Energy. This success accelerates commercial discussions with several partners interested in this disruptive technology and, as announced in previous communications, will enable the Company's project pipeline to be converted into firm orders, thereby generating revenue. In particular, the effective commissioning of the site is a catalyst for finalizing the signing of two major contracts.

The continuous operation of hydrogen and renewable gas production equipment on site will also enable Haffner Energy's team to conduct tests using specific biomasses for each potential client, including non-conventional biomasses such as organic sludge, manure, and algae, thereby confirming the compatibility of Haffner Energy's technology.

Furthermore, Haffner Energy is now positioned to leverage a previously untapped technological solution that converts hydrogen into electricity at an extremely competitive cost, highly valuable during peak consumption periods.

Despite a global context that remains unfavorable to the development of the hydrogen market, particularly in Europe and in France—where the national hydrogen strategy has yet to be announced—Haffner Energy's position in this high-potential market is now strengthened.

Next events

Annual results 2024-2025 June 18, 2025

Annual Shareholders Meeting September 10, 2025

About Haffner Energy

Haffner Energy is a French company providing solutions for competitive clean fuels production. With a 32- year experience converting biomass into renewable energies, it has developed innovative proprietary biomass thermolysis and gasification technologies to produce renewable gas, hydrogen and methanol, as well as Sustainable Aviation Fuel (SAF). The company also contributes to regenerating the planet through the co-production of biogenic CO2 and biocarbon (or char/biochar). Haffner Energy is listed on Euronext Growth (ISIN code : FR0014007ND6 – Ticker : ALHAF).

Investor Relations

investisseurs@haffner-energy.com

Media Relations

Laetitia Mailhes

laetitia.mailhes@haffner-energy.com

+33 (0) 6 50 97 90 12

Laetitia Mailhes

Haffner Energy

607129676 ext.

[email us here](#)

Visit us on social media:

[X](#)

[LinkedIn](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/789411042>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.