

Haffner Energy: a strengthened roadmap for a confirmed ambition

Vitry-le-François, France, November 29, 2023, 8:00 am (CEST),

During a webinar today at 5pm, Haffner Energy informs its shareholders of its commercial, technological and manufacturing positions. The Company is also updating its short-term outlook.

In brief,




- **Business outlook:** renewable gas is now priority No. 1, with the launch of a new competitive high-capacity offering to address the immediate industrial markets for the replacement of fossil natural gas in European; confirmation of renewable hydrogen as priority No. 2, with delayed deployment in slower-than-anticipated start-up markets; positioning in sustainable aviation fuels (SAF), with multiple initial MOUs (partnership agreements) under discussion.
- **Technology and industrial facilities:** the technology is now more reliable thanks to the feedback since 2021 on the industrial demonstrator in Strasbourg, France; new-generation demonstrator installed on its own site in early 2024 in Marolles (Marne, France); launch of the FACTOR'HY project for a high-capacity assembly plant, with initial support of €5.9 million from the French government as part of the France 2030 call for projects operated by Bpifrance.
- **Short-term outlook:** Very strong growth in pipeline** (€488 million at 29/11/23, compared with €300 million at 31/03/23), confirming sales guidance of €250 million by March 31, 2027; ongoing discussions with R-GDS and Carbonloop on the execution of signed contracts, resulting in a temporary drop in activity and the concomitant implementation of temporary measures to reduce costs and preserve cash.

A disruptive and versatile technology answering more immediate needs than hydrogen

Haffner Energy's disruptive biomass thermolysis technology and the clean fuels derived from it have the capacity to meet the accelerating need for decarbonization, creating new development opportunities to complement renewable hydrogen. In recent months, the company has thus mobilized to develop new offers based on its technology, in order to capture the market for renewable gas as a replacement for fossil natural gas, and for sustainable aviation fuel (SAF) as a replacement for fossil kerosene.

Evolving markets call for agility and for new outlets

Haffner Energy now operates in **3 main markets, each with a different horizon:**

Sales outlook		HYNOCA®	SYNOCA®	SAFNOCA®
Short-term		To replace fossil hydrogen with renewable hydrogen	To replace fossil natural gas with renewable synthetic gas (Hypergas®)	To replace fossil kerosene with sustainable aviation fuel (SAF) via a renewable precursor gas
Middle-term				
Long-term				
Industry		Targeted customers: companies using hydrogen for their industrial processes: refining, oil industry, glassmaking, steelmaking, methanol production, chemicals ...	Targeted customers: industries using natural gas as an energy carrier: metallurgy, glassmaking, ceramics, textiles, paper mills, brickworks, food processing, petrochemicals...	NA
Mobility				
Individual vehicles 		Targeted customers: Public or private H2 distributors	NA	NA
Heavy-duty vehicles 		Targeted customers: Public or private H2 distributors	NA	
Aviation 		Targeted customers: Operators of future H2 aircraft (post 2035) for short and medium-haul routes	NA	Targeted customers: Energy distributors, airlines, energy providers, airports... MOU (Partnership agreements) Projects

The SYNOCA® solution, a direct replacement to fossil natural gas with renewable synthesis gas (Hypergas®), has been Haffner Energy's No. 1 commercial priority since its launch in October with 10Mw and beyond modules. A considerable industrial market exists within Europe, made up of 14,000 consumers utilizing fossil natural gas for their industrial thermal needs, heating networks or autonomous electricity production. Economically competitive and entirely renewable, simple to install from both a technical and administrative point of view, SYNOCA® is benefiting from numerous requests for quotation, resulting in a considerable increase in the overall pipeline (€488 million at November 29, 2023 versus €300 million at March 31, 2023). The expected sales of this solution should at least compensate in the short term for the lag in activity observed in the renewable hydrogen market.

The HYNOCA® solution, which produces renewable hydrogen to replace fossil hydrogen, has seen its deployment delayed in a slower-than-anticipated market, particularly at the time of the Company's IPO in February 2022 (prior to the conflict in Ukraine). This situation has led to a delay in converting the pipeline into firm contracts. It is also reflected in ongoing discussions with R-GDS and Carbonloop on the execution of signed contracts, putting the order book at risk, with a total of €17.5 million at 31/03/23 and a substantial deficit of €5.8 million. At the same time, Haffner Energy has received new expressions of interest in the potential of its technology, both in France and in the United States notably, where 12 hydrogen projects are currently under discussion. Biomass thermolysis is now recognized as eligible for Ademe's EcosysH2 calls for territorial ecosystem projects. In this context, the NedE'HY project, led by Nedey Automobiles, has applied with HYNOCA® technology for financial support to equip a hydrogen station project based on biomass residues; with a decision expected in early 2024.

The SAFNOCA® solution, launched last July, represents a decisive step towards replacing fossil kerosene with sustainable aviation fuel (SAF). Indeed, the conversion of diversified solid biomasses and renewable waste appears to be the main route to the necessary decarbonization of air transport, without replacing the world's fleet. Haffner Energy's disruptive technology offers a unique response to this crucial challenge, which is benefiting from the collective commitment of the industry and the public in Europe, and even more so in the United States. SAFNOCA® is the only solution currently identified that is capable of seamlessly addressing the most abundant, diversified solid biomass deposits required to meet the challenges of SAF. Haffner Energy has received numerous expressions of interest from the sector's leading players. Several initial MOUs (partnership agreements) are currently under discussion for signature in the near future in Europe and the United States, with a view to mass production of SAF from 2026 onwards.

Faster deployment based on adjusted sales priorities

Haffner Energy has undertaken major efforts to increase its commercial visibility in 2 main geographical areas: **Europe, with priority given to SYNOCA®**, due to the context of energy independence and the pressure to decarbonize industry; and the **United States, where the focus is on SAFNOCA® and HYNOCA®** due to increased market interest, accessible large-scale biomass, and applicable incentives focused on to decarbonization.

A strengthened roadmap for a confirmed ambition

A unique decarbonization mission, a ESG commitment recognized

Backed by the **vision and experience of a company with thirty years' experience**, the Haffner Energy team is committed to help **regenerate the planet** for future generations by contributing to the elimination of greenhouse gases. Its ambition is on-going - to **design breakthrough technologies for decarbonization and renewable energies** - and its business is unique: to design, manufacture and supply **cutting-edge equipment**.

The company's commitment to a sustainable world goes beyond its technology, and Haffner Energy has been awarded an **Ethifinance Silver rating for its ESG performance, with a score of 67/100**, ranking 26th/164 in the industry sector.

A proven technology and innovation with positive markets impacts

Haffner Energy's patented biomass thermolysis technology has made further progress thanks to 30 months of uninterrupted feedback at its industrial demonstrator in Strasbourg. Its results are conclusive.

- Production of renewable synthesis gas: stable production operation, up to 100 hours in a row (the plant is shut down at weekends), consistent gas quality.
- Simultaneous production of mobility-quality renewable hydrogen (99.97% pure).
- Production of biochar with chemically compliant properties with existing certifications (European Biochar Certificate, Puro Earth, Verra).

To go even further, in **early 2024** Haffner Energy will install a **new-generation industrial demonstrator on its own site**, as part of the test and training center project currently being set up on the Vitry-Marolles industrial estate (Marne), close to its head-office. In particular, the Company will benefit from the autonomy required to test its customers' different biomasses, carry out its own trials.

A decisive step towards the construction of a Gigafactory in the Grand-Est region of France

In addition to the acquisition of the Jacquier factory in June 2023, which gave Haffner Energy its first industrial tool, and the forthcoming opening of the test and training center, Haffner Energy has just taken the **first concrete step towards Factor'Hy**, its high-capacity assembly plant project. **Selected as part of the France 2030 "Première Usine" call for projects operated by Bpifrance**, the project will receive €5.9 million in government support. Financing for the plant, to be located in Saint-Dizier (Haute-Marne, France) by 2026, is expected to be completed in the first half of 2024.

A short-term savings plan and reaffirmed medium-term ambitions

In response to a temporary drop in activity, Haffner Energy is implementing a savings plan combining non-replacement labor force departures and a reduction in the number of external service providers, targeted short-time working measures, tighter cost control. This short-term plan safeguards the future of the company, whose pipeline growth confirms the company's ambitions and financial outlook (sales

outlook of €250 M by March, 31 2027).

Philippe Haffner, Chairman and CEO of Haffner Energy, commented: *"We are more convinced than ever of our technological, commercial and industrial potential. We are confident: the progress we have already made and the signs of confidence we are receiving from our professional and institutional environment will convince our shareholders to move forward, alongside us, in the service of decarbonization. They can rest assured of the unfailing commitment of my brother, Marc, and myself, major shareholders, and of all Haffner Energy's employees."*

**Pipeline: preliminary feasibility study carried out / budget offer or preliminary business plan / letter of intent sent or signed / participation in tender / down payment made by customer / creation of a company specifically for a given project including Company equipment.*

*** Haffner Energy previously reported on an order book, a backlog and a pipeline. The notion of backlog has been abandoned. At 31/03/2023, the backlog was €65 million, of which €17.5 million was order book, and the pipeline was €252 million. In the new definition, the order book remains unchanged at 17.5 M€ and the backlog excluding the order book (65-17.5=47.5 M€) is included in the pipeline, which therefore amounts to 300 M€ (252 + 47.5 M€).*

Join the shareholders' webinar by registering [here](#)

About Haffner Energy

Haffner Energy a listed family company co-founded and co-directed by Marc and Philippe Haffner, has been a key player in the energy transition for 30 years. It designs and supplies innovative decarbonization solutions for mobility, industry and local authorities. Its HYNOCA®, SYNOCA® and SAFNOCA® solutions, based on biomass thermolysis, a technology protected by 15 patent families, enable customers to produce locally renewable hydrogen and gas, as well as other green energies such as Sustainable Aviation Fuel (SAF), while capturing carbon from the atmosphere through the co-production of biochar.

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