PRESS KIT

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QAIR'S INTERNATIONAL RENEWABLE HYDROGEN STRATEGY

Navigating the landscape from pilot projects to larger-scale production units

Qair

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EDITORIAL

Louis Blanchard

President of Qair

"By combining renewable electricity with renewable hydrogen production, we take a crucial step toward a decarbonised society. In our ever-evolving world, renewable energies are not just a mean to decarbonise our economies; they are on the verge of becoming the only viable source of energy in the long term. Moreover, they serve as a vector for geopolitical stability and energy sovereignty, especially in Europe.

At Qair, we have built a strong track record in producing renewable and competitive electricity for our customers across Europe. Today, our challenge is to succeed in the renewable hydrogen venture. With Hyd'Occ, France's largest renewable hydrogen production facility, complemented by a regional hydrogen mobility network, Qair is making hydrogen an operational reality for local communities. Where others have stepped back, we have persevered and delivered on our commitments.

Why? Because two-thirds of Europe's energy still relies on molecules – and to transition to green molecules, renewable hydrogen is essential, as is the support of public authorities to establish and scale this critical industry.

Beyond French borders, the realization of this initial unit will also guide us in successfully executing projects on a larger scale, notably in Brazil and Iceland, where renewable resources abound. Together, we pave the way toward a cleaner, more sustainable future firmly rooted in renewable energies."

EXECUTIVE SUMMARY

Qair, a key player in the global renewable energy sector, is introducing a comprehensive strategy for the worldwide development, production, and distribution of renewable hydrogen and renewable molecules. This strategy, rooted in Qair's extensive experience in renewable energy development, combines large-scale production hubs for global supply with localized infrastructure—such as regional production units and distribution networks—to ensure both efficiency and adaptability across markets.

COMPANY INTRODUCTION

Qair is a European independent renewable energy company with a global presence and a track record as an industry pioneer. Driven by its end-to-end approach, the company continually explores new ways to harness the potential of natural resources across multiple technologies.

As a forerunner in renewable energies, Qair continues to develop innovative projects in sectors such as floating wind power with 30 MW pilot farm Eolmed, tidal power with FloWatt and renewable hydrogen with Hyd'Occ, the largest renewable hydrogen production unit in France. This commitment to innovation is underpinned by Qair's core model: developing, financing, building, and operating projects across renewable hydrogen, marine renewables, and onshore renewables, while also providing energy management solutions to optimize and market the output.

To ensure these initiatives are both impactful and inclusive, Qair applies a multi-local approach to engage local stakeholders in all activities. Leveraging strong partnerships with communities and a nuanced grasp of local contexts and market demands, Qair designs solutions that maximize regional resource potential while precisely meeting the expectations of energy buyers.

With 1.7 GW in operation or construction, Qair is developing a pipeline of over 35 GW of projects. The Group's ambition is to treble its commissioned assets to attain 3 GW by 2027.

QAIR'S RENEWABLE H2 STRATEGY

A clear vision

1. Renewable H2: An important link in the ongoing energy transition

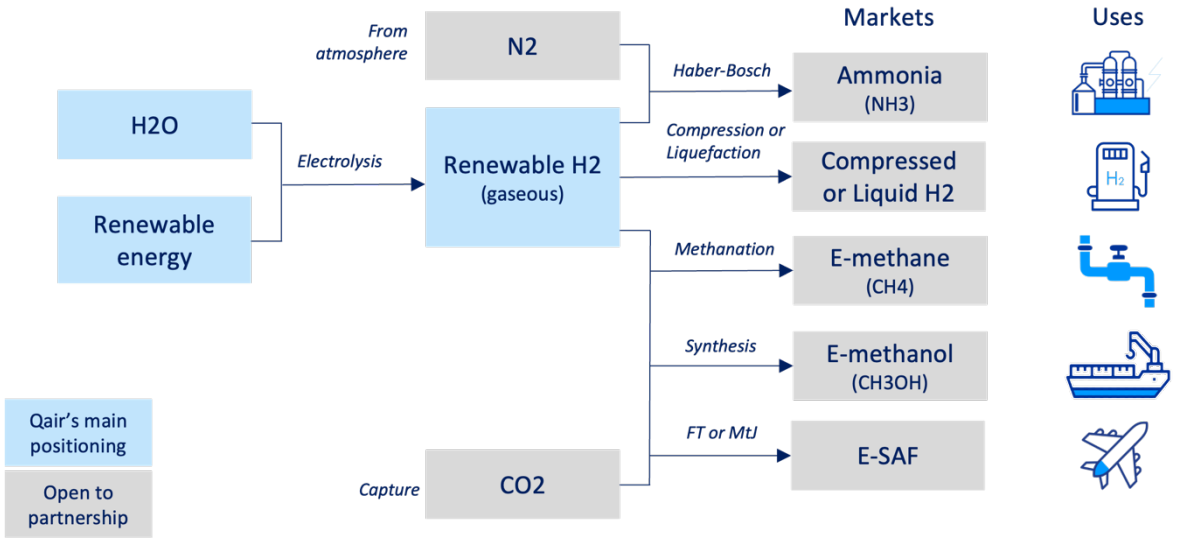
Renewable hydrogen is emerging as a crucial solution to facilitate the indirect use of renewable energy in hard-to-abate sectors such as industry and long-distance transportation, aviation, and shipping, where battery technology is impractical. It can be converted into various energy-dense liquid molecules such as ammonia, e-methanol, and e-kerosene, enabling these industries to reduce their carbon footprints significantly.

Additionally, renewable hydrogen will also play a key role in addressing the intermittency issue of renewable energy sources like wind and solar by providing a means to store excess electrons generated during peak production periods. This stored energy can be converted back into electricity when renewable generation is low, ensuring a consistent and reliable energy supply.

By producing and selling renewable molecules directly to end-users, renewable hydrogen not only decentralizes energy distribution but also enhances the accessibility and adoption of renewable energy in various applications.

2. Covering the entire H2 value chain

From its origins as an Independent Power Producer, Qair has become a fully integrated energy company. Today, the Group's expertise spans the entire renewable energy value chain, from development, financing and construction to operations, and energy management. Qair takes the same holistic approach to its renewable hydrogen projects: from production to distribution, the company develops integrated solutions and builds robust renewable hydrogen ecosystems across Europe and beyond.



3. Promising geographies identified

- Qair's green H2 projects under development and construction
- Top-priority countries for green H2 development
- Shipping routes for export to Europe

4. Tailoring hydrogen projects to local opportunities and market demands

True to its multi-local approach, Qair tailors its projects to the unique opportunities and needs of each geography. In Europe, Qair develops projects close to key consumption sites, ensuring a reliable and responsive supply for the short-term market. These initiatives are designed to align with local energy goals and leverage available support to ensure competitiveness.

At the same time, Qair is actively advancing projects in regions with ideal conditions for competitive hydrogen production—such as the far north of Europe and Latin America. These projects, benefiting from abundant resources and lower costs, will play a crucial role in meeting medium-term demand as the market evolves and logistics infrastructures are deployed.

This dual strategy allows Qair to pilot innovative solutions, build expertise, and scale projects efficiently - delivering sustainable energy solutions that are both locally relevant and globally impactful.

QAIR'S AMBITIOUS YET REALISTIC TARGETS

By 2032

1 GW
of electrolysis

260 kt/y
of renewable H2 produced

A two-fold plan: leveraging experience to develop large-scale production units

Qair's international, mid-term strategy is to become a major independent player in the production and commercialisation of green molecules.

Drawing on the experience gained from its pilot project Hyd'Occ, Qair now focuses on developing large onshore and offshore renewable projects in areas with low Levelized Cost of Energy (LCOE) to supply large electrolysers efficiently. Securing strategic lands near these renewable assets is essential for developing these electrolysers. The company plans to target both the local and the export market with the EU emerging as the main hub for renewable hydrogen consumption globally.

Key factors in this strategy include favourable sun and wind conditions, manageable development costs, land availability, and proximity to transportation hubs like pipelines and ports, as well as nearby consumption markets. This comprehensive approach ensures that Qair can meet global demand for renewable hydrogen sustainably and profitably.

QAIR'S FLAGSHIP RENEWABLE H2 PROJECTS

Overview

LOCATION	PROJECT NAME	PRODUCT	CAPACITY	COD (PHASE 1)
FRANCE (OCCITANIE)	**HYD'OCC**	GASEOUS H2	20 MW ⟶ 40 MW	2025
FRANCE (OCCITANIE)	**DH'OCC**	DISTRIBUTION GASEOUS H2	C. 10 MW OVER 6 STATIONS	STATIONS 1 & 2 IN CONSTRUCTION
FRANCE (LE HAVRE)	**METHAVERT**	E-METHANOL	140 MW ⟶ 300MW	2030
ICELAND	**BLÆR**	DISTRIBUTION GASEOUS H2	5 MW OVER 6 STATIONS	STATIONS 1 & 2 RUNNING
BRAZIL (CEARA)	**PECÉM**	NH3 AND/OR LIQUID H2	280 MW ⟶ 2.24 GW	2030
BRAZIL (PERNAMBUCO)	**SUAPE**	E-METHANOL /NH3 /LIQUID H2	280 MW ⟶ 2.24 GW	2032
ICELAND	**KATANES**	NH3 AND/OR LIQUID H2	280 MW ⟶ 840 MW	2031

Hyd'Occ

Hyd'Occ is France's largest renewable hydrogen production unit, and is operated by Qair in Port-La Nouvelle. The first molecule was produced at the end of 2025 and the full commissioning of the first 20 MW phase is scheduled in 2026.

Hydrogen will be produced by low-temperature, low-pressure, alkaline electrolysis of water, mainly for maritime and mobility uses and will be delivered by container via the multimodal logistics hub of Port-La Nouvelle.

Port-La Nouvelle offers a strategic advantage for its strong maritime infrastructure and industrial skills. Its local storage facilities and well-connected rail and motorway networks further enhance logistical efficiency and transport operations.

At the heart of the Occitanie region's ambition to become Europe's leading positive energy region by 2050, the port of Port-La Nouvelle is also the site of Qair Eolmed's floating wind farm project.

Hyd'Occ is a winner of the French call for projects "Corridor H2", a Europe-wide initiative that aims to develop a series of hydrogen production and distribution capacities for mobility from the Iberian Peninsula to Northern Europe, coupled with the deployment of numerous heavy vehicles using hydrogen. This initiative is led by the Occitanie Region and backed by the European Investment Bank, and the European Commission.

KEY FIGURES

- **40 MW** electrolysis capacity in two phases of 20 MW
- Initial production capacity of **2,700 t/year** in phase 1 and **5,400 t/year** in phase 2
- **8** atmospheric-pressure electrolysers
- An investment of **€85 millions**
- The creation of **30 direct** and **100 indirect** jobs during construction

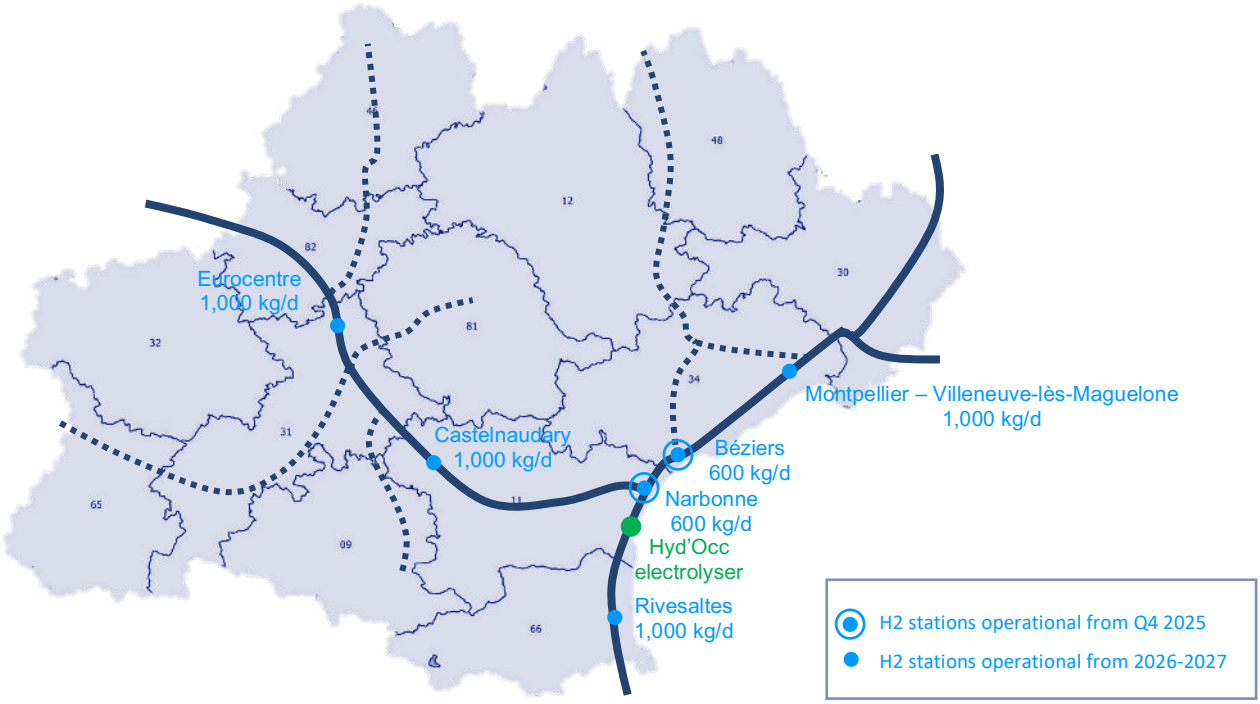
A project led by

Financed by

Dh'Occ

Dh'Occ is the sister project of Hyd'Occ, designed to expand the hydrogen infrastructure in the Occitanie region.

This ambitious initiative will establish six hydrogen refuelling stations strategically positioned along the "Corridor H2" axis, aligning with the regional commitment to sustainable mobility and energy transition.



The project timeline is synchronised with Hyd'Occ, with the first two stations currently in construction and expected to be operational by the end of 2025.

Subsidies from regional, national, and European levels will ensure the project's competitiveness, allowing it to offer hydrogen at prices that can compete with traditional fuels. The hydrogen supplied to these stations will be sourced from Hyd'Occ, ensuring a sustainable supply chain, and compliance with the EU's target of incorporating 1% Renewable Fuel of Non-Biological Origin (RFNBO) in the transport sector from 2030 onwards.

AREC Occitanie, the region's energy and climate agency, holds an 8% stake in the project, reflecting the strong support from regional authorities. Additionally, other local stakeholders have expressed their commitment, underscoring the collaborative effort to drive the hydrogen economy in Occitanie.

Qair, is actively conducting prospecting efforts for end-uses, such as hydrogen-powered trucks. In collaboration with the Region, subsidies will still be available in 2026 for end-use applications, and short-term pilot tests will be carried out to demonstrate that hydrogen mobility is already a reality.

ABOUT THE STATIONS

- **1** lease signed, **1** lease under negotiation, **2** land purchases secured
- Most stations will be **« multi-fuel »**
- Output pressure will be **350bars** and **700bars**
- **Public stations** 24/24 7/7

Methavert

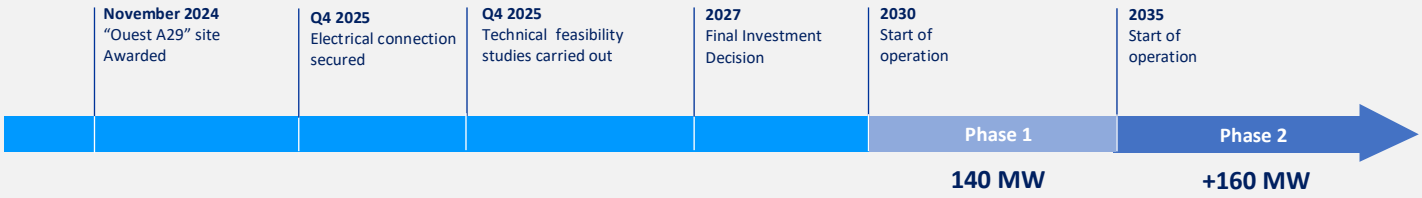
methavert

Developed by Qair, Methavert aims to establish a renewable hydrogen and methanol production plant within the industrial port area of Le Havre, the first Northern European deep-water entry point for imports and the final port for exports.

The parcel was awarded in November 2024 as part of the 'Ouest A29' call for projects launched by Haropa Port, the merger of the ports of Le Havre, Rouen and Paris, aimed at reindustrialising a 60-hectare site located in Rogerville, near the Grand Canal du Havre and the A29 motorway.

© Photo: Richard Villalon

Qair and Haropa Port collaborate on setting up a renewable hydrogen and methanol value chain, which will transform the industrial port area. Once fully operational (phase 2), the facility will produce 40,000 tonnes of hydrogen and 200,000 tonnes of e-methanol per year to support the decarbonisation of maritime transport and other high-emission and hard-to-abate industries ('hard-to-abate sectors'). Integrated seamlessly into the local ecosystem, the project will benefit from existing upstream and downstream facilities and align with the ongoing decarbonization efforts of nearby industrial sites.



KEY FIGURES

- **300 MW** electrolysis capacity in phase 2
- **40,000 tonnes** of hydrogen and **200,000 tonnes** of e-methanol produced per year in phase 2
- Over **€700 million** invested in both phases

Katanes

KATANES

Qair is developing the Katanes project, an 840 MW e-fuel facility in Grundartangi, Iceland. The project will include 780 MW of electrolyser capacity, structured in three successive phases of 280 MW each (260 MW electrolyser + 20 MW balance of plant and additional equipment).

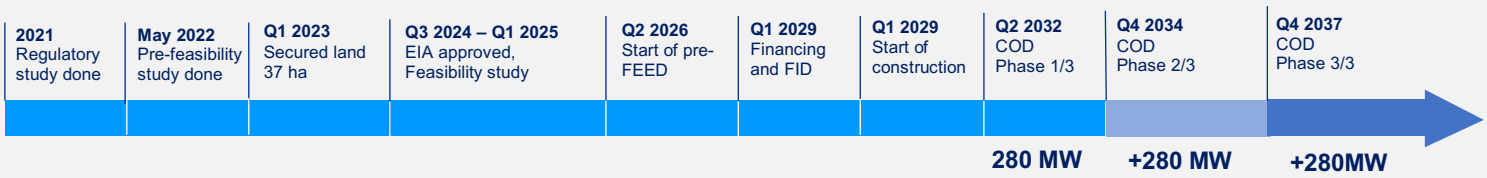
The first phase will integrate renewable hydrogen production via electrolysis and ammonia synthesis.

The project site spans 36 hectares and has been secured through contracts, including access to water for electrolysis, necessary infrastructure, road connections, utility access, and a new harbor facility designed for the shipping of gaseous and liquid products.

At full capacity, the plant will produce up to 120,000 tons of renewable hydrogen or 700,000 tons of renewable ammonia annually. Excess production not used domestically will be exported to Europe, establishing a sustainable source of foreign income for Iceland.

The first phase of Katanes is currently in the early FEL2 development stage (Basis of Design/pre-FEED[1]) and was recently awarded by the European Commission, the prestigious STEP Seal[2] at the Innovation Fund Call 2024. The project will draw renewable power from Qair's 780 MW wind pipeline, as well as other wind, geothermal, and hydropower sources available in Iceland.

Permitting for the Katanes project is advancing, with the Environmental Impact Assessment recently approved. The current timeline targets a Commercial Operation Date (COD) in Q2 2032, with a Final Investment Decision (FID) planned for Q1 2029.



KEY FIGURES

- **840 MW** e-fuel facility developed in three phases of 280 MW
- **780 MW** of electrolyser capacity
- **120,000 tons** of renewable hydrogen or **700,000 tons** of renewable ammonia produced annually

[1] **Pre-FEED (Pre-Front End Engineering Design)** is an early phase in the development of large industrial projects, such as energy or infrastructure facilities. It follows the conceptual or feasibility study stage and precedes the more detailed FEED (Front End Engineering Design) phase.

[2] **The** STEP seal (Strategic Technologies for Europe Platform) is a designation created by the European Union to identify and support projects that contribute to the development and deployment of key strategic technologies essential for Europe's technological sovereignty, competitiveness, and green and digital transitions.

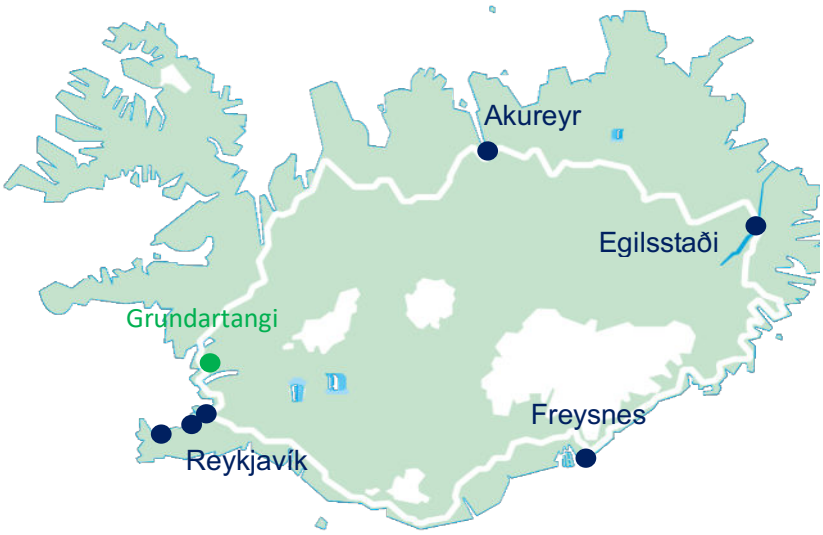
Blaer

In 2023, Qair acquired a 50% stake in Íslenska Vetnisfélagið (IV), a subsidiary of Orkan, the only provider of hydrogen refueling solutions in Iceland. Rebranded as Blaer, this joint venture now operates two hydrogen (H2) stations, including the world's first commercial hydrogen station, which was opened by IV in 2003.

Hydrogen production is currently carried out in cooperation with ON Power, as Qair constructs its own electrolysers.

Plans are underway for the establishment of a third hydrogen station in Reykjavik's city center, strategically located near the main road. This expansion is supported by a grant from the Nordic Council of Ministers, which will fund the purchase of a transport container and the design of a truck station.


The geographical layout of Iceland, with its well-spaced transportation hubs, makes it an ideal setting for hydrogen-powered vehicles, including trucks. The long-term objective is to build an integrated hydrogen production and distribution system that will enable widespread hydrogen mobility across the country.



To achieve this, three new hydrogen stations will be built in the future in addition to the existing ones and the one in construction, enabling the operation of hydrogen-powered trucks around Iceland.

Each station will be equipped with its own modular electrolyser to fulfil decentralised supply of hydrogen. After 2032, increased demand for H2 in Iceland will be met by Qair's Katanes mega-project.

KEY FIGURES

- **6 stations** with a total capacity of **5 MW**
- **4 hubs** to cover a **1350 km** distance
- Longest distance between 2 stations amounting to approximately **380 km**
- **Modular** electrolysers to be installed with each station

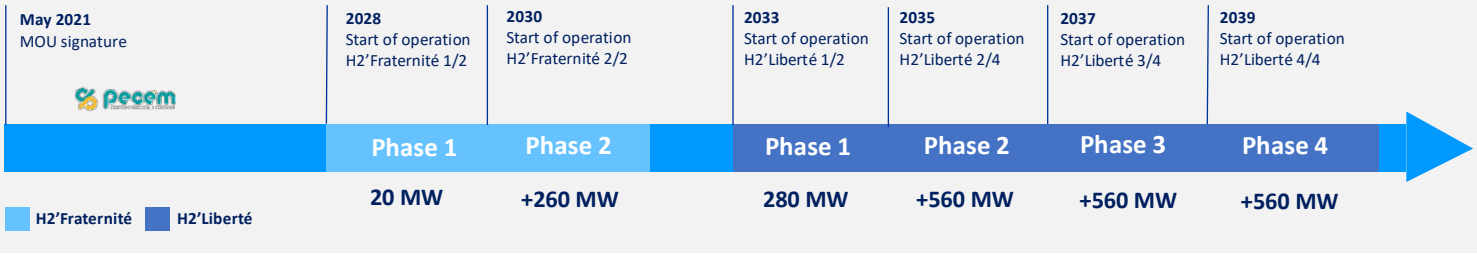
H2PECEM

Qair is developing its H2PECEM composed of two projects at the Pecém Industrial Port, located just one hour from Fortaleza, the capital of Ceará and Qair's local offices in Brazil.

The company has purchased a land of over 1,000 hectares with a strategic location in the Free Economic Zone and a few kilometers from the SE PECEM II substation. This will enable Qair to develop competitive hydrogen projects and address the local and export markets, enabling seamless integration of the project's various phases.

The energy for Qair's projects at Pecém will be sourced from its own wind and solar plants, supplemented by balancing power from Brazil's national grid, which has a very high share of renewable. Qair is on track to reach 1 GW of operational projects in Brazil by 2025, with total installed capacity potentially growing to 8 GW by 2032, supporting all phases of development.

The hydrogen produced at Pecém will serve multiple offtake purposes under distinct initiatives. The H2'Fraternité project will focus on local industrial applications including blending hydrogen with natural gas. It will be deployed in several phasis in order to be aligned with market development. Additionally, "H2'Liberté" will produce ammonia (NH3) for export to Europe.



KEY FIGURES

- **2,24 GW** electrolysis capacity in the mid-term (H2'Fraternité & H2'Liberté)
- **280 MW** electrolysis capacity in the short term (H2'Fraternité)
- **42 kt/year** of renewable hydrogen (H2'Fraternité)
- **336 kt/year** of oxygen (H2'Fraternité)

H2'Pernambuco

Qair's H2'Pernambuco project is located at the Suape Industrial Port Complex, just 30 minutes from Recife, the capital of Pernambuco.

The site offers excellent connectivity and infrastructure for the project's development, with an electric margin enabling seamless power connection to the Suape II substation, located approximately 5 kilometers from the project site. Additionally, the site will be equipped with road access and connections to essential utilities, including waste management, electricity, and seawater.

This ambitious renewable hydrogen (H2) production facility will be powered by Qair's own wind and solar plants, supplemented by balancing power from the national grid, which has a very high share of renewable energy sources.

The abundant availability of biogenic CO2 in the area makes the production of e-fuels such as e-methanol highly viable, further integrating renewable energy and renewable chemistry into the local economy.

H2'Pernambuco represents a key initiative in advancing both local and global decarbonization efforts, leveraging Pernambuco's strategic location and natural resources to produce sustainable fuels for the future.

OUR LATEST PRESS RELEASES:

October 6, 2025
Qair secures financing for Hyd'Occ renewable hydrogen ecosystem, advancing its renewable hydrogen strategy

April 3, 2025
Advancing European Renewable H2 Mobility: Qair Launches Its First Hydrogen Station in France

November 7, 2024
France: Qair to develop e-methanol project on Haropa Port site in Le Havre

September 18, 2024
Qair and Trapil sign partnership agreement to develop e-molecule distribution projects internationally

January 25, 2024
Renewable hydrogen: Qair and Airbus join forces to advance sustainable aviation fuels in Occitania, France

September 6, 2023
Renewable Hydrogen: Qair acquires 50% stake in Orkan's hydrogen refuelling station subsidiary and extends its presence in Iceland

July 20, 2023
Renewable hydrogen: Hyd'Occ (Qair Group and AREC Occitanie) signs major supply agreement with Plug

June 29, 2023
Renewable hydrogen: launch of construction of Hyd'Occ, the 50 MW renewable hydrogen production unit

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Glossary

Electrolysis: Electrolysis is a process in which an electric current is passed through a substance, causing it to break down into its component parts. Renewable hydrogen is obtained by Electrolysis of water, using electricity from renewable sources to split water into oxygen (O_2) and hydrogen (H_2).

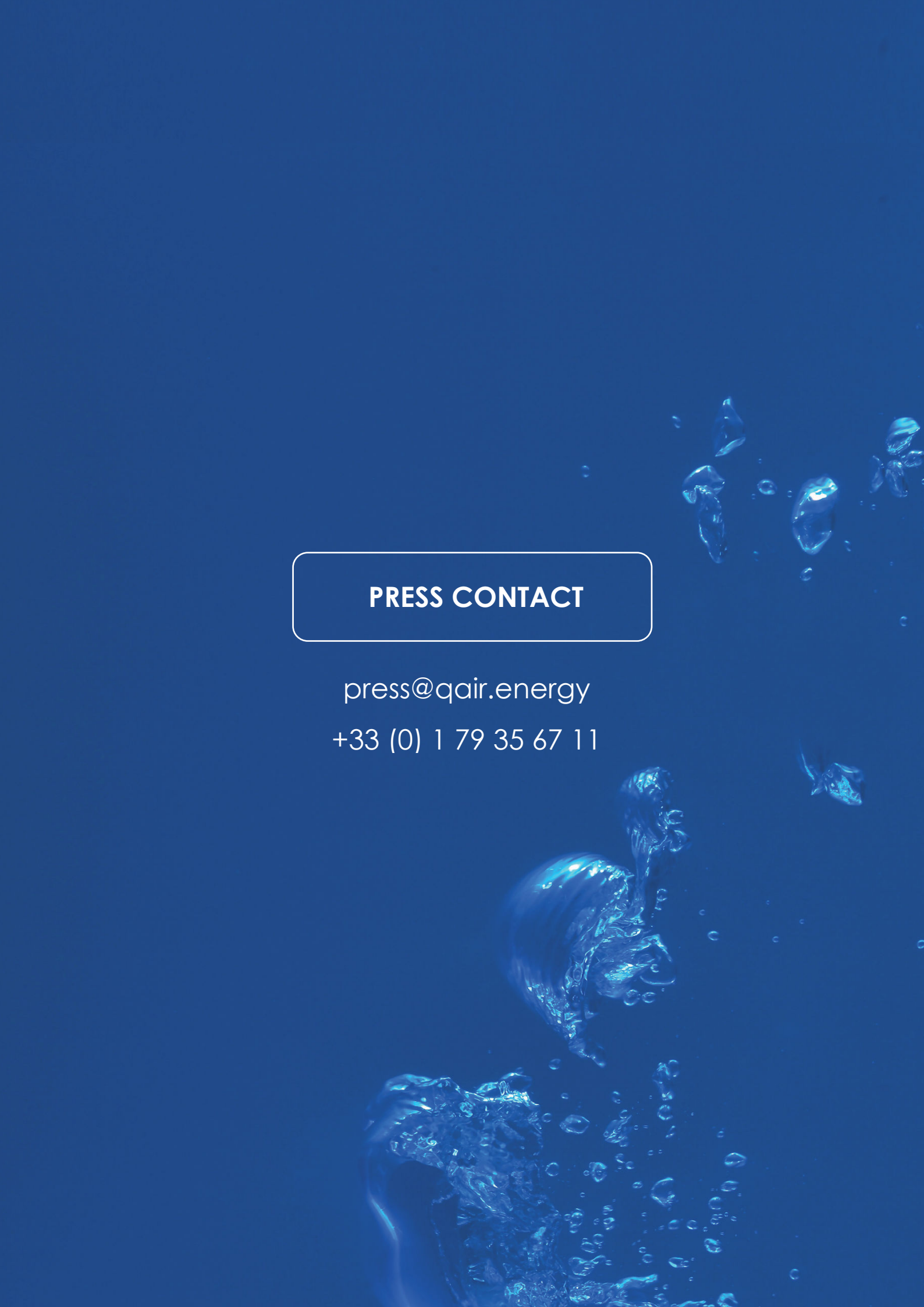
Electrolyser: An electrolyser is a device that uses electricity to split water or other components into their constituent elements through electrolysis.

Haber-Bosh process: The main industrial method used to produce ammonia (NH_3) from nitrogen gas (N_2) and hydrogen gas (H_2) under high pressure and temperature, using finely divided iron metal as a catalyst.

Fischer-Tropsch (FT) process: Catalytic chemical reaction that converts a mixture of carbon monoxide (CO) and hydrogen (H_2), known as syngas, into liquid hydrocarbons (such as synthetic fuels, diesel, or wax) and other valuable chemicals. This process is essential for producing synthetic fuels from sources like coal, natural gas, or biomass.

Methanol-to-jet (MtJ) process: The Methanol-to-Jet (MtJ) process is a two-step method that converts methanol—derived from sources like natural gas, biomass, or captured CO_2—into sustainable aviation fuel (SAF).

Sustainable Aviation Fuel (SAF): low-carbon jet fuel made from renewable or waste sources, designed to replace or blend with traditional kerosene and reduce aviation's CO_2 emissions.



PRESS CONTACT

press@qair.energy

+33 (0) 1 79 35 67 11