Press Release

Italgas: Italy's first plant for the production of green hydrogen directly connected to a city distribution network inaugurated in Sardinia

- Called Hyround, it is located in Sestu (Cagliari) and will supply users connected to the network, a fleet of public transport buses and the production process of a food industry.
- The Minister for the Environment and Energy Security, Gilberto Pichetto Fratin, attended the event.
- Italgas CEO Paolo Gallo: "Focus on research and development to accelerate the decarbonisation of consumption".

Sestu (Cagliari), 2 October 2025 – Hyround, Italy's first green hydrogen production plant directly connected to a city gas distribution network, was inaugurated today in Sestu (Cagliari).

Among those attending the ribbon-cutting ceremony were the **Minister of the Environment and Energy Security, Gilberto Pichetto Fratin**; the **President of the Regional Council of Sardinia, Piero Comandini**; the **Mayor of Cagliari, Massimo Zedda**; the **Mayor of Sestu, Maria Paola Secci**; the **Chairman of Italgas, Paolo Ciocca**; the **CEO of Italgas, Paolo Gallo**; and the **CEO of Italgas Reti, Pier Lorenzo Dell'Orco**.

*"Today, with Italgas, Sardinia and Italy are taking a leap into the future - **said Gilberto Pichetto Fratin, Minister of the Environment and Energy Security** -. This is the energy transition stepping out of textbooks and becoming an industrial and social reality. Hydrogen, the most widespread molecule in the world, is at the center of many projects, and our government believes in it. With the support of modern digital technologies, Sardinia is becoming a national and European laboratory of the tangible sustainability we constantly strive for, and which today Italgas, with the launch of the first residential hydrogen energy community, is making real".*

By investing in the development of a green hydrogen production plant," ***commented Italgas CEO Paolo Gallo***, "we have chosen the future. This is not just about producing hydrogen, but about demonstrating that research and development are the key drivers to accelerate the decarbonization of consumption. Technological neutrality and the integration of new energy sources allow us to address the energy trilemma: security of supply, environmental sustainability, and cost competitiveness. Sardinia stands as a tangible example of this vision of the energy future—a future built on state-of-the-art gas networks, capable of accommodating renewable gases and complementing electricity grids on the path to net zero by 2050.

"*Hyround confirms the central role of renewable gases and gas distribution networks as key elements of the energy transition* - **commented Pier Lorenzo Dell'Orco**, **Italgas Reti CEO** . *The plant, designed and built entirely in-house leveraging the Group's know-how and expertise, is the first example in the EU of the use of hydrogen and methane blending for end-*

use purposes and enhances the use of hydrogen at the domestic level, making Sestu a virtuous and replicable model".

The production plant is based on Power-to-Gas technology, which converts electricity into hydrogen through a process of water electrolysis. The hydrogen produced is intended for multiple uses, both in pure form to power a fleet of buses for local public transport and blended with natural gas for subsequent distribution to customers in Sestu. It will also be used to supply the production process of a local dairy industry. The electricity that powers a 0.5 MW electrolyser is generated by a photovoltaic array, consisting of 1,746 panels with a peak power of 1 MW, built in an area adjacent to the plant. The methods of hydrogen utilization are governed by an Operational Protocol signed by Italgas, the Ministry of the Environment and Energy Security (MASE), and the Italian Gas Committee (CIG)

Initial production is approximately 21 tons of hydrogen per year, expected to increase to 70 tons per year by 2028. The project involved an investment of approximately €15 million, of which €1.5 million from the National Recovery and Resilience Plan (NRRP) for the construction of the hydrogen refueling station for vehicles.

Hyround covers the entire value chain: from production to storage and distribution, with the aim of demonstrating how, with the contribution of the gas system – thanks to the extensive reach of the networks and their virtually unlimited storage capacity – the decarbonisation goal of key sectors such as transportation, industry and residential use is achievable in the medium term.

The choice of Sardinia is no coincidence: the Italgas Group has built the most advanced gas distribution networks in the country on the island: "native digital" networks which, in addition to bridging the gap in natural gas supply in 2020 through a tailor-made supply system, are already ready to accommodate different gases, including renewable ones such as biomethane, hydrogen and synthetic methane.

In this sense, hydrogen has a dual strategic importance, not only as a carrier but also as a means of energy storage. Hyround demonstrates that one of the most effective ways to store electricity produced from renewable sources is not through accumulators – for which the country does not have the necessary raw materials – but through its conversion into a clean carrier such as hydrogen. This gas, even when mixed with others, can be easily injected into existing networks, quickly transported from one point to another in the distribution system and stored or transformed according to usage needs.

Hyround implements the principle of sector coupling which, based on the integration of gas and electricity systems, strengthens the overall flexibility and resilience of the country's energy system.

The name Hyround is inspired by the principles of cyclicality, regeneration and continuity: key elements of an increasingly sustainable energy system linked to renewable energies, including gases.