press release
Modena, 31 March 2025

Hera Group a pioneer in the energy transition: mixture with 5% hydrogen injected into a gas network for the first time in Italy

The tests in the province of Modena were made possible by the protocol, unique in Italy, recently signed by Inrete Distribuzione Energia (Hera Group), the Ministry for the Environment and Energy Security and the Italian Gas Committee. The progressive enabling of the existing assets to use hydrogen will make a concrete contribution to decarbonisation. The next step involves 10% blending

In the Modena area, Inrete Distribuzione Energia (a Hera Group company) has launched Italy's first injection of a mixture of natural gas and 5% hydrogen into a gas distribution network serving a residential area.

These trials are possible thanks to the protocol, unique in Italy, recently signed by Inrete, the Ministry for the Environment and Energy Security (MASE) and the Italian Gas Committee (CIG), which allows for testing, in compliance with the most demanding safety requirements, methane gas mixtures with blending of up to 10% hydrogen in distribution networks. The goal is to create favourable conditions for the progressive enabling of mixtures with increasing percentages of gas with a low fossil carbon content to be used in networks, thus making a concrete contribution to the energy transition.

The initiative was presented today in Castelfranco Emilia (Modena) near the construction site of the residential area chosen for the trial, in an event attended by the President of the Emilia-Romagna region, **Michele de Pascale**; the mayor of Castelfranco Emilia, **Giovanni Gargano;** the CEO of the Hera Group, **Orazio Iacono**; the CEO of Inrete Distribuzione Energia, **Federico Bronzini** and representatives of the CIG.

The trials, carried out in agreement with the municipal administration of Castelfranco Emilia and in collaboration with numerous partners, will end on 3 April. More specifically, they involve the introduction of a mixture with 5% hydrogen into an isolated section of the network serving about 40 households in this town, all of which have been appropriately informed.

This energy vector with a low environmental impact will contribute to the decarbonisation needs of local areas, while making it possible to use the existing gas infrastructure in Italy which is unique in Europe in terms of length and reach, without modifying the existing thermal plants. The project, supervised by internationally recognised bodies, involves the operators of the entire gas supply chain, from transport to equipment manufacturers, producers of boilers and gas burners. The final tests will also be extended downstream of the meters, thanks to the collaboration of the citizens involved, with checks on the operations of domestic gas appliances.

"We are making an important step towards the energy transition," comments **Michele de Pascale, President of the Emilia-Romagna Region**. "The launch, in Castelfranco Emilia, of Italy's first 5% hydrogen blend in a natural gas distribution network serving residential users, represents a concrete and innovative step towards decarbonisation. This project makes it possible to experiment with the use of green gas in existing infrastructures, without modifying household systems and in full compliance with the strictest safety regulations. We are particularly proud that this initiative reflects the work done by the Hera Group, which was born out of the desire of many municipalities in Emilia-Romagna to join forces and bring together sustainability and competitiveness. Emilia-Romagna, thanks to its advanced industrial and technological ecosystem, has once again confirmed itself as a national laboratory for innovation with a view to sustainability. These trials are

fundamental in enabling, in the future, a progressive injection of up to 10% hydrogen, valorising existing networks and making a concrete contribution to reducing dependence on fossil fuels."

"Hydrogen is a strategic vector for the future of the European energy system, and the Hera Group is already a leading national operator in this sector, at the forefront in enabling networks to transport green molecules as well," comments **Hera Group CEO Orazio Iacono**. "Our business model integrates industrial growth with concrete sustainability, supported by strategic investments, which aim to develop businesses and at the same time make the areas in which we operate more competitive, liveable and resilient to global challenges. As a multi-utility, our role has changed over the years, and from distributors of commodities we have become enablers of the energy transition through our infrastructures. This is why our 2024-2028 strategic plan includes 2.5 billion euro of investments, out of a total of 5.1 billion euro, that will go towards an increasingly efficient, digitised and resilient network, while maintaining outstanding service quality. This path is unconceivable without the lever of innovation, which allows us to constantly trace new paths, to support the evolution of our business alongside the sustainable growth of the areas served through to the long term."

Trials, now in the third phase, to conclude with the last step at the end of the year

Since 2021, Inrete has been at the head of a project that has already successfully experimented, twice, with injecting a mixture of natural gas and 2% hydrogen into the gas networks serving the same residential area that is now the focus of the new initiative. Having received full confirmation of the necessary measures, both in terms of technology and safety, the Hera Group company, after signing the protocol with the MASE and the CIG, has launched the third phase of the trials with the aim of exploring the various operational aspects that enable the infrastructure to receive, in its current layout, mixtures of natural gas and 5% hydrogen. The project will come to a conclusion towards the end of the year when, based on the results obtained, the feasibility of testing mixtures with an even higher quantity of hydrogen, up to 10%, will be evaluated.

For a correct gas measurement, this trial requires the adoption of NexMeter by all users involved in the project. NexMeter is the G4 gas meter developed by the Hera Group, already enabled to measure mixtures of methane and hydrogen. This device, which has opened up new perspectives in the sector in terms of both advanced technology and safety functions, is already found in almost 300,000 Italian homes connected to the gas distribution networks managed by the Hera Group's distribution companies.

The following collaborate in this project:

The supply chain partners participating in the project include BAXI, Bosch, Electrolux Group, Emerson, Ferroli, Immergas, Innovhub SSI, Pietro Fiorentini, Snam, TdZ, Valpres (a Bonomi Group company), Alfa Engineering and Idrotherm 2000; RINA is the certifying partner.