

Press release

Enagás Hydrogen Day

Enagás boosts the development of renewable hydrogen in Spain

The Vice-President and Minister for Ecological Transition and the Demographic Challenge, Teresa Ribera, participated online in the inauguration of the event, which was held by the Secretary of State for Energy, Sara Aagesen

Franziska Brantner, Parliamentary State Secretary at the German Federal Ministry for Economic Affairs and Climate Action, gives a keynote speech on Germany's bet to renewable hydrogen

The President of the CNMC, Cani Fernández, will close the conference

- During the inauguration, the Vice-President and Minister for Ecological Transition and the Demographic Challenge, Teresa Ribera, pointed out in a video that "events have meant that the hydrogen economy has anticipated its attractiveness and that Spain is extraordinarily well positioned"
- The Secretary of State for Energy, Sara Aagesen, said that "Spain has everything it needs, companies, talent and industry, to become a benchmark for renewable hydrogen worldwide"
- In his welcome speech, Enagás Chairman Antonio Llardén indicated that 2022 has been a turning point in European energy policy and that "renewable hydrogen is a common element in the three vectors of energy policy: security of supply, decarbonisation and price"
- The CEO of Enagás, Arturo Gonzalo, stressed that in order to turn Spain into a renewable hydrogen hub, the collaboration of all agents is essential
- The interventions highlighted the importance REPowerEU attaches to renewable hydrogen as an energy carrier, as well as Spain's potential as a major producer of this renewable gas
- Arturo Gonzalo pointed out that having H2MED and a backbone "is the essential basis for making Spain the first renewable hydrogen hub in Europe and at the same time meeting domestic demand"
- Spain's pipeline network is ready to adapt to hydrogen transmission. "If we look at the current map of the gas pipeline network and the hydrogen network planned for 2040, we can clearly see that the routes coincide by more than 80%", Arturo Gonzalo pointed out
- Enagás has announced that in 2023 it will launch non-binding calls for interest in the axes of the Spanish Hydrogen Backbone, starting with the Vía de la Plata Axis
- H2MED will represent an estimated maximum total investment of 2.5 billion euros and the Spanish Hydrogen Backbone axes presented by Enagás for Projects of Common Interest (PCI), together with the two storage facilities under study, will represent an estimated maximum investment of 4.67 billion euros
- Enagás Hydrogen Day brings together authorities, institutions, companies and leading experts in the field of renewable hydrogen

Madrid, 19 January 2023. Today is the Enagás Hydrogen Day, an event that brings together authorities, institutions, companies and leading experts in the field of renewable hydrogen, and in which -throughout today- several key note speeches and roundtables will be held.

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At the opening ceremony, the Vice-President and Minister for Ecological Transition and the Demographic Challenge, Teresa Ribera, highlighted in a video that “events have meant that the hydrogen economy has anticipated its attractiveness and that Spain is extraordinarily well positioned to take advantage of this capital”. She added in her speech that “it is important to work in advance on projects that will allow Spain to take advantage of this great opportunity”.

In this regard, Ms Ribera pointed out that “some analysts have shown that approximately 20% of the renewable hydrogen projects announced worldwide are located in Spain, behind only those announced in the United States”.

The Secretary of State for Energy, Sara Aagesen, pointed out that “Spain has everything it needs, companies, talent and industry, to become a benchmark for renewable hydrogen worldwide”.

Enagás Chairman Antonio Llardén indicated that 2022 has been a turning point in European energy policy and that “renewable hydrogen is a common element in the three vectors of energy policy: security of supply, decarbonisation and price”.

Enagás CEO Arturo Gonzalo stressed that Spain has a key geographical position, significant renewable generation potential, a robust infrastructure network and the necessary industrial capacity. In this respect, he pointed out that “the collaboration of all agents is essential”.

Spain’s potential as Europe’s leading renewable hydrogen hub

The European Hydrogen Backbone (EHB) initiative, in which Enagás participates together with the main European TSOs, has been studying for some time how the demand for hydrogen will be distributed in Europe and what the maximum production potential of each country would be, and has highlighted the need for a network that brings supply and demand closer together.

REPowerEU envisages the development of five hydrogen corridors to connect producer countries with demand centres. In this context, Spain stands out as a potential major producer of green hydrogen with huge capacity to export to other countries and with a key role in achieving the European consumption target of 20 million tonnes of hydrogen by 2030, of which 10 million tonnes would be produced in Europe.

Enagás has presented a study which concludes that, with the data available today, it estimates a renewable hydrogen production potential in Spain of between 2 and 3 million tonnes in 2030, and between 3 and 4 million tonnes by 2040. To this last figure should be added the 750,000 tonnes that are expected to be received from Portugal through the interconnection.

As regards the demand for renewable hydrogen in Spain, estimates for 2030 are 1.3 million tonnes and an export through a maritime connection between Barcelona and Marseille (BarMar) of up to 2 million tonnes, which is equivalent to 10% of the total expected demand in Europe in 2030. Seaborne exports of around 450,000 tonnes are also expected.

Arturo Gonzalo stressed that having H2MED and a backbone “is the essential basis for turning Spain into the first renewable hydrogen hub in Europe and at the same time meeting domestic demand”.

Together with the TSOs of Portugal and France, Enagás submitted H2MED to the call for European Projects of Common Interest (PCIs) on 15 December, as announced by the Spanish Government. This corridor includes a connection between Celorico da Beira in Portugal and Zamora (CelZa), and the aforementioned maritime connection between Barcelona and Marseille (BarMar).

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The company also presented the first two axes of the Spanish Hydrogen Backbone -one of them encompasses the Cantabrian Coast Axis, Ebro Valley Axis and Levante Axis; and the other is the Vía de la Plata Axis with its connection to the Puertollano Hydrogen Valley-, as well as a proposal to analyse the feasibility of two underground hydrogen storage facilities in Cantabria and the Basque Country.

The Enagás CEO also announced that in 2023 the company will launch non-binding calls for interest in the Spanish Hydrogen Backbone axes, starting with the Vía de la Plata Axis. "This is another step towards making renewable hydrogen a reality and for Spain to become the European and world hub it is destined to be". He explained that the government's future binding planning "will mark the next steps in this area".

Investments from 2026 onwards

In an initial estimate, the maximum total investment to be made for H2MED will be around 2.5 billion euros from 2026 onwards.

The Spanish Hydrogen Backbone projects, together with the two storage facilities that have been identified as necessary for its correct operation (submitted by Enagás to the PCI call for proposals) represent a total maximum investment of 4.67 billion euros.

Arturo Gonzalo clarified that both the supply and demand estimates and the final layout of the Backbone and its investments will be finalised with the final renewable hydrogen targets to be defined in the PNIEC update - scheduled for mid-year - as well as in the Government's Mandatory Planning.

Investments will also be finalised on the basis of several factors such as the final PCI list, the results of calls for interest and Open Season, the final percentage of the current infrastructure network that can be reused and the final technical characteristics of the projects.

With regard to the financing of these investments, the means will be: access to European funds, firm commitments from future off-takers which may give rise to Project Finance mechanisms, the cross-border allocation of costs between the beneficiary countries of Projects of Common Interest and tolls associated with the use of infrastructures.

Enagás' role

During his speech, Arturo Gonzalo highlighted Enagás' role as a catalyst in the hydrogen market in its triple capacity: as TSO and potential HNO, as Technical Manager of the System and, through its subsidiary Enagás Renewable, participating in the promotion of renewable gases projects.

"Our 50 years' history and experience as a gas network operator make us fully prepared to be the operator of the future hydrogen network", said Arturo Gonzalo.

Spain already has an infrastructure network that can be the starting point for the development of a hydrogen network with more than 80% overlap in the routes, with the only exceptions being the international corridors and some connections with hydrogen production valleys. Enagás has already identified 30% of pipeline axes to be converted into hydrogen pipeline, a percentage that could be increased to 70%.

In this context, other synergies between the gas and hydrogen networks are highlighted, such as a 50% reduction in processing times, cost savings of more than 30% and reduced environmental impact.

Arturo Gonzalo also said that the hydrogen projects submitted to the PCI call are aligned with European goals and with the Enagás 2022-2030 Strategic Plan.

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Roundtables

Throughout today, several key note speeches and round table discussions will be held at the Enagás Hydrogen Day.

Franziska Brantner, Parliamentary State Secretary at the German Federal Ministry for Economic Affairs and Climate Action, will give a keynote speech on Germany's commitment to renewable hydrogen.

Enagás' CEO moderates the first roundtable of the day, "European renewable hydrogen framework", with the participation of Cristina Lobillo, Head of Energy Policy of the European Commission's Directorate-General for Energy; Jorgo Chatzimarkakis, CEO of Hydrogen Europe; and João Faria Conceição, COO and Executive Director of REN.

The second roundtable, "Hydrogen innovation and development", will feature María Retuerto, Researcher at the Institute of Catalysis and Petrochemicals of the CSIC; Claudio Rodriguez, Gas Assets General Manager at Enagás; Mario Carrero Maroto, CEO of H2Greem Global Solutions; and Silvia Lazcano, Head of Technological Development and Partnerships of Airbus Spain. The debate is moderated by the Chairman of Sedigas, Joan Batalla.

The third roundtable, "The hydrogen value chain and its uses" will include Javier Goñi, Chairman and CEO of Fertiberia; Gloria Fluxà, Vice Chairwoman and Sustainability Director of Iberostar; Juan Abascal, General Manager of Industrial Transformation and Circular Economy at Repsol; Ricardo Domínguez, Chairman of Navantia; and Anton Martinez Rodriguez, CEO of Enagás Renewable, in a discussion moderated by Eugenia Sillero, Secretary General of Gasnam.

The fourth and final roundtable, "Financing hydrogen", headed by Luisa Gomez Bravo, Global Head of Corporate & Investment Banking at BBVA, will feature Pierre-Etienne Franc, CEO of Hy24 and Chairman of FiveT Hydrogen; Jacobo Llanza, CEO of Alantra Asset Management; Bart Biebuyck, Executive Director of Clean Hydrogen Partnership; and Alexandrina Boyanova, Head of Climate Office of the European Investment Bank.

Representatives of the International Energy Agency are also participating through key note speeches: "Hydrogen transmission and storage", by José Miguel Bermúdez Menéndez, Energy Technology Analyst at the Agency, and "The investment landscape for hydrogen", by Tim Gould, Chief Energy Economist at the Agency.

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