Repsol and Enagás' renewable hydrogen production project receives European Commission backing

- The European Commission, through its Innovation Fund scheme, is financing part of the investment that Repsol and Enagás are going to allocate to the construction of **a demo plant for the production of renewable hydrogen using photoelectrocatalysis technology** at the Puertollano Industrial Complex.

- This technology, which Repsol and Enagás are developing jointly, is already operational at the **pilot plant** that the two companies have set up in the **Repsol Technology Lab**. The larger Puertollano plant could be operating by 2024.

- This decision by the European Commission represents a major support for the project and **demonstrates the innovative nature of photoelectrocatalysis technology**, as well as the contribution Repsol and Enagás are making to the European goal of developing clean energies.

- Repsol is making progress in the **development of new projects at its Puertollano Industrial Complex, as announced in its 2021-2025 Strategic Plan and involving more than 700 million euros of investment** to transform this industrial centre into a multi-energy hub.

- Enagás is committed to **achieving carbon neutrality by 2040** and is promoting **55 specific renewable gases projects**, together with more than 60 partners.

The project to produce renewable hydrogen from photoelectrocatalysis, which Repsol and Enagás will scale up at their Puertollano Industrial Complex, has the support of the European Commission (EC) following the approval of part of its financing through the European Innovation Fund.

This decision by the EC represents a major support for this innovative project that Repsol and Enagás are developing and which already has a pilot plant in operation and production at the Repsol Technology Lab research centre in Móstoles. With the approval of the financing for the project developed by the two companies, Repsol is moving forward with its plans to scale up this plant with the construction of a larger facility at the Puertollano Industrial Complex.

Enagás is promoting 55 specific projects throughout Spain in the fields of renewable gases and decarbonisation (34 green hydrogen projects and 21 biomethane projects) alongside more than 60 partners. In total, these projects could mobilise a joint investment of 6.3 billion euros. Many of these projects have been submitted to the different expressions of interest announced by the Spanish Government.

In line with the decarbonisation goals, Repsol has 31 projects, with a total associated investment of 6,359 million euros, that are within the framework of the calls for expressions of interest for the European Next Generation funds carried out by the Government. These projects combine technology, decarbonisation

and the circular economy, the creation of quality employment, and territorial balance: eight are renewable hydrogen projects, nine are circular economy projects, four are renewable generation and storage projects, eight are distributed energy and electric mobility projects, one addresses digital transformation in the industrial field and the last one focuses on the transformation of the energy value chain through artificial intelligence and data economy.

The Puertollano plant, which will be the only one of its kind and capacity in Europe, could be operational by 2024 and will produce around 100 kg of hydrogen per day from sunlight. The new facility, in addition to internal consumption, will supply the new hydrogenerators that Repsol plans to install nearby in the future, which will be used to power fuel cells for buses and trucks.

In addition, the 100% renewable oxygen also produced at the plant will be used in other facilities at the Repsol Industrial Complex in Puertollano, specifically in the sulphur recovery plant, thus advancing the decarbonisation of its industrial processes.

The plant will have a dual system, i.e. it will be able to generate up to 100 kg of hydrogen from sunlight per day and will increase its production of hydrogen by 450 kg per day from its connection to the electricity grid. In total, the overall capacity of the plant will be 200 tonnes of hydrogen per year.

As well as this initiative, Repsol and Enagás have jointly supported major projects such as the Hydrogen Valley of Catalonia, a macro project with the Rovira i Virgili University and Repsol in which more than 100 institutional and business agents are also involved.

Repsol is thus making progress in its plans to transform its industrial complexes into multi-energy centres capable of generating products with a low, zero or even a negative carbon footprint. In the case of Puertollano, Repsol announced an investment of more than 700 million euros for the Industrial Complex in new projects focused on accelerating its goal of becoming a zero net emissions company by 2050.

The production of renewable hydrogen is an important vector for the decarbonisation of industry with different applications. Last May, Repsol announced an investment of 150 million euros for two renewable hydrogen production initiatives at the Puertollano Industrial Complex: the project that applies photoelectrocatalysis technology, which already has EC funding, and the project to produce hydrogen from biogas.

Since 2014, Enagás has reduced its carbon footprint by 63%, as it moves towards its goal of becoming a carbon-neutral company by 2040, or even earlier.

Enagás is among the world's leading companies in climate action and year after year it sits atop sustainability indices and rankings. It is included in the CPD Climate Change “A List”, and it is one of the companies that has spelled out its climate commitments in the European Climate Pact initiative, which forms part of the European Green Deal. Moreover, Enagás has been continuously included in the FTSE4Good Index Series sustainability index for 15 years and has obtained the highest ESG rating in its sector worldwide.

Innovative nature of the projects financed

The European Commission’s Innovation Fund programme awards funding to the most innovative projects for the development of low-carbon technologies that are close to pre-commercial scale. Of the more than 230 projects presented to the European office, the commission will finance 32, two of which were submitted by Repsol.

Thus, the second of the multi-energy company's projects refers to the production of aggregates -a type of material commonly used in the construction industry to manufacture concrete and roads, among other uses- from CO_2 captured at the hydrogen plant at the Petronor refinery in Bilbao. To obtain these products, Repsol will use the circular economy and disruptive technologies.