



bp launches plans for low-carbon green hydrogen cluster in Spain's Valencia region

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- Aims to make Valencia region a leader in green hydrogen production.
- Cluster to include world-scale green hydrogen production at bp's Castellón refinery of up to 2GW of electrolysis capacity by 2030
- Supports transformation and decarbonisation of the refinery, together with tripling biofuel production.
- Transformation of Castellón could see bp invest up to 2 billion Euros.

bp today launched the green hydrogen cluster of the Valencia region (HyVal) at its Castellón refinery. Led by bp, this public-private collaborative initiative is intended to be based around the phased development of up to 2GW of electrolysis capacity by 2030 for producing green hydrogen at bp's refinery.

HyVal is expected to play an instrumental role in decarbonizing the operations of bp's Castellón refinery. Its transformation - including green hydrogen, biofuels and renewable energy - could see bp invest a total of up to 2 billion Euro in Castellon by 2030.

Green hydrogen – generated by the electrolysis of water using renewable power – will support decarbonization of the refinery's operations, replacing its current use of 'grey' hydrogen generated from natural gas.

Its production of biofuels is expected to increase three-fold, to 650,000 tonnes a year 2030. Green hydrogen will also be used as a feedstock in biofuel production, specifically of sustainable aviation fuel (SAF).

HyVal was launched today by Andrés Guevara, president of bp Energía España, in a presentation attended by more than 200 people, including Spain's Minister of Industry, Commerce and Tourism, Reyes Maroto, the president of the Generalitat Valenciana, Ximo Puig, and the mayor of Castellón, Amparo Marco.

Andrés Guevara said: "We see Hyval as key to Castellón's transformation and critical to supporting decarbonization across the Valencia region. We aim to develop up to 2GW of electrolysis capacity by 2030 for green hydrogen production, helping decarbonize our operations and customers. And we plan to triple the refinery's production of biofuels to help meet the growing demand for lower carbon fuels

such as SAF. We believe HyVal can play an important role in Valencia region's efforts to decarbonize and help support thousands of industrial jobs across the region."

In addition to being used by bp at the refinery, the green hydrogen produced will also be used in key hard-to-abate industries in the Valencia region, such as the ceramic industry replacing the natural gas used in their processes, chemical industries for the production of green ammonia and in heavy transport.

HyVal aims to support the development of Valencia region into a leader for the production of green hydrogen in Spain. Its hydrogen production is expected to be developed in phases.

The first, anticipated to be operational in 2027, will involve the installation of an electrolysis plant with at least 200MW capacity at Castellón refinery. This initial stage would be expected to produce up to 31,200 tonnes of green hydrogen per year. Use of this green hydrogen to replace natural gas is estimated to be able to avoid more than 300,000 tons of CO2 emissions per year when used first in the refinery and then in thermo-intensive industries and heavy transport. This green hydrogen will also be used as a feedstock for the production of SAF (Sustainable Aviation Fuel), at the refinery.

In the second phase, which could be completed in 2030, the electrolysis plant would be expanded to reach a capacity of up to 2GW of net installed power. Green hydrogen production from such a world-scale plant could support both regional and national demand, as well as positioning Valencia region to export green hydrogen to the rest of Europe through the Mediterranean corridor of green hydrogen H2Med.

The Valencia region is already home to strategic infrastructure and facilities that can play a critical role in developing a green hydrogen economy, including ports and wind and solar power generation capacity. bp's Castellon refinery is well-connected with national and international markets, enabling it to support decarbonization of hard-to-abate industries in Spain, like transport and chemicals.

Carolina Mesa, bp's vice president Hydrogen, Spain and New Markets, added: "The production of green hydrogen will be another step in strategic energy autonomy for Spain and more widely for Europe. "

A broad initiative, led by bp, HyVal also includes the potential participation from companies from various industries in the region, public institutions and research and training centers. It is anticipated that the full development of HyVal will create up to 5,000 direct, indirect and [induced] jobs in the region.

bp aims to build a leading position in green hydrogen globally and produce 0.5-0.7 million tonnes a year of mostly green hydrogen by 2030. It is progressing a number of green hydrogen projects throughout the world, including in the UK, Australia and Germany.

About bp

Central to BP's long-term strategy is to partner with countries, cities and corporations to provide innovative energy, mobility and decarbonisation solutions as they chart their path to net-zero emissions.

Present in Spain since 1954, bp is one of the main energy companies in the country, where it has launched and plans to continue developing important projects in the field of renewable energies and low carbon energy to advance its ambition and accompany the country in its leadership as a European hub for the production and distribution of renewable energies.

Further information

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