



bp and Iberdrola announce final investment decision for largest green hydrogen plant in Spain

12 September 2024

- bp and Iberdrola have formed a 50:50 joint venture in Spain to develop a 25MW green hydrogen project.
- The partners have taken final investment decision for the project. The green hydrogen produced will support the decarbonization of bp's refinery operations in Castellón, expected in 2026. It is expected to result in avoiding the emission of 23,000 tons of CO₂ per year.
- The project has been awarded funding of 15 million euros from the Spanish Recovery, Transformation and Resilience Plan, with funding allocated by NextGenerationEU. This plant could create up to 500 new direct jobs during its construction.

Madrid, 12 September 2024 – bp and Iberdrola have given the green light for construction of a 25 MW green hydrogen project at bp's Castellón refinery which is expected to be operational in second half of 2026. This is the first hydrogen project jointly undertaken by bp and Iberdrola through Castellón Green Hydrogen S.L., a joint venture equally owned by both companies. The project was presented at an official event to publicly celebrate the signing in July 2024 of the final investment decision between bp and Iberdrola.

This initiative, which includes the participation of the Technology Institute of Energy (ITE), has been awarded funding of 15 million euros from the Innovative Value Chain and Renewable Hydrogen Knowledge call of the Spanish Recovery, Transformation, and Resilience Plan, with funding allocated by NextGenerationEU of the European Union.

Felipe Arbelaez, bp's senior vice president, hydrogen & CCS, said: "bp's first investment decision for an industrial scale project is an important step forward for our hydrogen business. We are focused on value, progressing only the best projects in our portfolio that can create additional value through integration and fully meet our investment hurdles. This also demonstrates the strength of partners combining their strengths to advance a nascent energy source that has the potential to play meaningful role in decarbonising industry. Castellón refinery can lead the way with its transformation."

Millán Garcia-Tola, Global Director of Hydrogen in Iberdrola said "this partnership with bp and our project is another step in Iberdrola's firm and real commitment to promote green hydrogen as a key vector for industrial decarbonization. The plant will convert 200 GWh/yr of Iberdrola's renewable energy into green hydrogen that will contribute to bp's decarbonization strategy, in another example of close collaboration between both companies, reliable partners that share values as long term

decarbonization commitment. Iberdrola will apply all the experience of its existing green hydrogen plants to optimize and accelerate the development of this project”.

“This project marks a milestone in our strategy and reflects the importance of collaboration, both with other companies that share our vision, such as Iberdrola, and in the public-private sphere. In this way, we not only advance the transformation of our infrastructure in Castellón, but also aim to strengthen the economic fabric and industrial capacity of the entire Valencia region,” said Olvido Moraleda, President of bp Energía España.

Mario Ruiz-Tagle, CEO of Iberdrola Spain, highlighted that this project is “another example of our strategic alliance with bp, uniting us to lead the future of renewable hydrogen in the Valencian region. Projects like Castellón show that, with the collaboration of all agents in the sector and the appropriate incentives, it is possible to develop a new industrial model. The green hydrogen economy is emissions free, electrified, attracts investment and creates quality jobs in the region. This is the true energy transition. We continue to work with committed partners to position Spain as a technological benchmark in Europe in the production and use of green hydrogen.”

The 25 MW electrolyzer will be powered by renewable electricity through a power purchase agreement (PPA) signed with Iberdrola that will supply 200GWh/year coming from Iberdrola’s photovoltaic and wind projects. The electrolyzer will include 5 modules of 5 MW containerized proton exchange membrane (PEM) technology, which will be supplied by Plug Power, a leading manufacturer of green hydrogen solutions. The green hydrogen produced by the electrolysis of water powered by renewable electricity will comply with European requirements to produce green hydrogen (Renewable Fuels of Non-Biological Origin, RFNBO) and will support the transition of bp’s Castellón refinery into an integrated energy hub. It’s expected around 2,800 annual tons of green hydrogen could substitute part of the grey hydrogen currently used by the refinery – currently produced from natural gas – and as such is expected to result in avoiding the emission of 23,000 tons of CO₂ per year, equivalent to the emissions of 5,000 cars over the same period. This plant could create up to 500 new direct jobs during its construction.

In parallel to this initial 25 MW project, bp continues to assess opportunities to increase capacity in the coming years. In subsequent phases of the project, the green hydrogen produced could also be used in key hard-to-abate industries in the Valencia region, such as the ceramics sector replacing natural gas used in its processes, in chemical industries and in heavy transport.

The launch of this project has been announced just weeks after bp signed a letter of intent with the Valencian Government to reinforce the region's position as a leader in the energy transition. The letter has materialized in the creation of a joint working committee that will serve as a platform for dialogue and collaboration between both parties and will oversee the transformation of bp's refinery in Castellón into an integrated energy hub.

Further information

- For more information: www.bp.com.es