



Climate Energy Environment Industry

The Portuguese Hydrogen Strategy to Decarbonise its Economy: The Project to Produce Green Hydrogen by Electrolysis

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Portugal was the first country in the world to

assume the goal of being carbon neutral in 2050. Working towards that objective our last coal-fired power station will be closed this year. We believe 2021 will be a decisive one in driving the European economy towards recovery and growth, preparing for the future, namely through the two-fold – green and digital – transition and strengthening society's resilience. Within the Portuguese Presidency of the Council of the EU we look forward to conclude the negotiation of the European Climate Law with the European Parliament, enshrining climate neutrality and an ambitious emission reduction target for 2030 of at least 55% when compared to 1990.

Hydrogen will play a very important role in decarbonization. It will be key, particularly to transform the more “hard to abate” sectors.

To achieve its full potential, it is very important to make progress, taking the necessary steps to make its price competitive and create a market, while maintaining investment in research and innovation, to develop the essential infrastructures and implement measures of certification of origin. Furthermore, following up on the excellent work done by the German Presidency, Portugal will strive to keep hydrogen as a central priority in the energy sector.

Portugal aims to start the green hydrogen production project on an industrial scale as soon as possible. We are in a good position to do so, considering our strategic advantages: a well-equipped deep-water harbour in Sines; a solar power price among the lowest in the world; public land available to install the hydrogen industrial complex and a modern natural gas supply network. We will combine these advantages with our ambitious decarbonization targets for 2030: a 55% reduction in greenhouse gas emissions and a 47% share of renewables in gross final energy consumption. During the next decade we aim to achieve 2 to 2,5 GW of installed capacity to produce hydrogen, to have between 10% to 15% of hydrogen injected into the natural gas grid and build between 50 to 100 hydrogen refuelling stations. These objectives amount to an investment of around 7 to 9 billion euros.

The hydrogen production in Portugal will reduce imports and energy dependency, strengthening ours and European Union’s energy security. This will strengthen the position Portugal as an exporter of green energy while decarbonising the industry, transport and heating.

It stimulates industry and gives new uses to the natural gas infrastructure that the country already has in place. This will be not only a major industrial project, but also an economic and social development project which will create or re-qualify existing jobs by calling for new skills and increase research and development – namely on electrolysis with waste and salt water. The green hydrogen production project is focused on leveraging solar energy, but also wind energy, on-shore and off-shore, as factors of competitiveness, industrial transformation and opportunity to increase exports.

Decentralising production is one of Portugal’s priorities. With that in mind, the Portuguese green hydrogen production plans are not limited to the Sines region and there will be projects of different scale, scattered throughout the territory. Together with the new legislation on energy communities, decentralized hydrogen production is an opportunity to attract investment to the interior of the country, allowing each territory to make the best use of its endogenous resources and actively participate in the energy transition, showing – as we have always said – that decarbonization, while challenging, is above all an opportunity.

The environmental ambition of the EU Green Deal will not be accomplished if Europe acts isolated. Climate change is global and is not limited by national borders.

All EU actions and policies will have to contribute to the achievement of the objectives. The challenges are complex and interconnected.

We believe that a country from southern Europe like Portugal can have an active role and push forward the broad use of hydrogen, particularly green hydrogen, becoming a key element in accomplishing Europe's decarbonization goals. As an ambitious and innovative country with a robust track-record in renewables, we bring forward our commitment and our current state of play in the hydrogen field and contribute to the global market.