

# HUGE NEWSFLASH

Hydrogen Utilization & Green Energy

December 2021

## GreenH2Atlantic

A group including some of Europe's biggest energy players aims to demonstrate highly efficient and flexible green hydrogen production on an "unprecedented scale" with the deployment of a 100MW electrolyser in Portugal.

Led by local renewables champion EDPR, the GreenH2Atlantic project in Sines also includes Vestas, Engie and Martifer, as well as Portuguese oil & gas group Galp in an effort to hit a levelised cost of hydrogen of €2.87/kg (\$3.24/kg) – a level that would make green H2 significantly more competitive in the market than previously.

The €76m project aims to turn a former coal generation site into a 'hydrogen valley' showcase for renewable H2, aided by a €30m grant under the EU's Horizon 2020 Green Deal initiative.

The 100MW electrolyser comprising "innovative, scalable and fast-cycling 8MW modules" will be supplied by French hydrogen specialist McPhy, with the project setting out to test an advanced interface directly coupling it with a hybrid solar and wind plant, hopefully unlocking a host of productivity and efficiency benefits assisted by AI technology.

More info can be found here:

<https://www.rechargenews.com/energy-transition/edpr-engie-and-vestas-join-unprecedented-green-hydrogen-plan-in-portugal/2-1-1135003>

## H2 Green Steel

ArcelorMittal and Swedish steel developer H2 Green Steel have set up plans to tap new green hydrogen supplies in Spain and in the Iberian peninsula, to fuel direct reduction iron plants and meet demand for low-emissions steel.

H2 Green Steel, or H2GS, said it had signed a Eur2.3 billion (\$2.61 billion) green hydrogen venture with Spanish power group Iberdrola for a 1 GW green hydrogen plant, feeding a new 2 million mt/year DRI plant owned solely by H2GS. The electrolyzer will be jointly owned and operated by Iberdrola and H2GS, with the project financed with a combination of public funding, green project financing and equity, it said.

The companies will explore the opportunity to colocate a green steel production facility capable of producing 2.5 million-5 million mt/year of low-emissions flat steel, in conjunction with the plant, it said. Iberdrola will deliver renewable energy to the electrolyzers.

More info can be found here:

<https://www.spglobal.com/platts/en/market-insights/latest-news/energy-transition/120221-steelmakers-drawn-to-iberian-promise-of-green-hydrogen-for-dri-projects>

## Berlin's H2Global initiative

Germany's \$1bn scheme to subsidise green hydrogen projects in non-EU nations gets green light. European Commission approves Berlin's H2Global initiative, which offers a route to market for large-scale renewable hydrogen facilities around the world. Berlin launched the H2Global scheme earlier this year because it believes that Germany will not be able to produce enough affordable green hydrogen from renewable energy inside its own borders.

Germany has already signed partnerships with Canada, Chile, Japan, Morocco, Saudi Arabia, the United Arab Emirates to co-operate on green hydrogen.

Countries with high solar irradiation and strong winds, or excess hydropower, are expected to be able to produce the lowest-cost green hydrogen, as the more hours per day an electrolyser is in operation, the cheaper the H2 will be. However, the high cost of shipping hydrogen to the EU could eliminate savings made from lower-cost production.

More info can be found here: <https://www.rechargenews.com/energy-transition/germany-s-1bn-scheme-to-subsidise-green-hydrogen-projects-in-non-eu-nations-gets-green-light/2-1-1133158>