HUGE NEWSFLASH

Hydrogen Utilization & Green Energy

February 2022

Thessalonica Hydroship

Italian classification society RINA has signed a memorandum of understanding (MoU) with marine systems provider 5M Renewables for the collaboration on the concept development for the floating green hydrogen production vessel

hessalonica HydroShip converts the energy from wind or tidal stream turbines into green hydrogen. It does not require the use of an FPSO, thus greatly reducing the overall levelized cost of energy (LCOE) to yield cost-competitive hydrogen.

The ready-made wind/tidal stream turbines, off-the-shelf electrolyzers, and other plant equipment will have their configuration optimised to deliver cost-competitive green hydrogen at near to shore distances, the developers claim.

This eliminates intercontinental delivery point transport and logistics, further cutting the long-term operating cost of hydrogen to end-user markets.

.More info can be found here:

https://www.offshore-energy.biz/rina-5m-renewables-to-develop-floating-green-hydrogen-production-vessel/

The Hydrogen Stream

HyDeal Spain will be the first industrial implementation of the HyDeal Ambition platform announced in 2021, supplying renewable hydrogen for the production of green steel, green ammonia, and green fertilizers.

Recently, IRENA ranked the project as the largest giga-scale renewable hydrogen project globally. Anchor sponsors include international steel manufacturing corporation ArcelorMittal, Spanish gas transmission system operator Enagás, Spain's chemical group Fertiberia and Madrid-based hydrogen company DH2 Energy.

Production is planned to start in 2025; the total installed capacity is expected to reach 9.5 GW of solar power and 7.4 GW of electrolyzers by 2030. ArcelorMittal and Grupo Fertiberia plan to purchase 6.6 million tons of renewable hydrogen over 20 years to produce steel, ammonia, and fertilizers.

'*HyDeal España is the first concrete implementation of the €1.5/kg green hydrogen system announced in February 2021*," commented Thierry Lepercq, chairman of the joint venture and spokesperson for HyDeal Ambition, adding that green hydrogen can now compete with coal, oil and natural gas in both costs and volumes.

More info can be found here:

https://www.pv-magazine.com/2022/02/18/the-hydrogen-stream-europes-largest-green-hydrogen-project-takes-shape//

Shipping of green hydrogen via e-methane

GH2 chairman Malcolm Ambitious project to import five million tonnes of H2 a year as synthetic green CH4 — and convert it back to hydrogen — is accelerated in response to Ukraine crisis.

Tree Energy Solutions (TES) now aims to complete a new "green gas" terminal at the port of Wilhelmshaven, northwest Germany, to accept deliveries of its "carbon-neutral" liquefied e-methane before the winter of 2025, having previously targeted a 2027 start.

This CH4 — which would be produced by combining captured CO2 with low-cost renewable hydrogen using the well-established Sabatier methanisation process — would then be converted back to H2 or, in some cases, used as methane with carbon capture.

"*The fast-tracking will provide for alternative energy security for Germany and Europe whilst accelerating the growth of green gas imports over time*," the company said.

Chancellor Olaf Scholz announced on Sunday that Germany planned to build two new LNG terminals, including one at Wilhelmshaven, but that is reportedly a mothballed project developed by utility Uniper.

More info can be found here: https://www.rechargenews.com/energy-transition/the-cheapest-way-to-ship-green-hydrogen-is-via-e-methane-we-will-help-wean-germany-off-russian-gas/2-1-1177575

Northern Periphery and Arctic Programme 2014–2020

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