Producing hydrogen at sea could be cheaper

The cost of producing green hydrogen at sea, as a way of storing 'excess' wind energy, could be reduced, says Jolanda van Medevoort and her colleagues at Wageningen Food & Biobased Research, after a pilot project on Texel island. The reduction in costs is achieved by using membrane distillation for the production of ultrapure water (UPW). This water, consisting almost entirely of H_2O, is split into oxygen (O_2) and hydrogen (H_2) using electrolysis. The researchers were able to obtain UPW from seawater using membrane distillation. This method for obtaining UPW is cheaper than the commonly used method of reverse osmosis. Another advantage is that the process does not require chemical pre-treatment and therefore does not damage the underwater environment.

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