

## **The role of LT electrolysis for the Italian hydrogen production in energy transition**

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The annual production from renewable electric energy in Italy has been continuously increasing. In the South an electric energy excess gets evident in solar peak hours. Such an excess energy could be harnessed to produce hydrogen by electrolysis, representing about 5% of Italian yearly H<sub>2</sub> industrial demand (and avoiding 126 million tons of CO<sub>2</sub> emissions). Few large (modular alkaline) electrolysis plants in specific areas of Southern Italy, powered by this excess energy, could produce enough H<sub>2</sub> for industrial uses at acceptable expected costs.