

HYDROGEN IS THE ENERGY OF THE FUTURE, UP TO A POINT *

Hydrogen has swept onto the world's energy stage as the solution to decarbonization. As the clock ticks fast towards the 2050 carbon neutrality deadline and as global warming accelerates, the pressure to act is palpable. Indeed, hydrogen will play a key role in the energy transition in some sectors, if it is supported by heavy government subsidies to make it efficient and competitive.

But in my view it is not the energy of the future across the board and the road to the so-called hydrogen economy is filled with pitfalls.

After many false dawns, all eyes are on hydrogen. Europe, Australia, China, Japan, South Korea are making big bets on hydrogen, and the EU alone estimates up to 470 B€ of investments by 2030 to achieve its hydrogen targets as part of its Green Deal. The advantages to hydrogen are huge when it is made with renewable energy ("green hydrogen"), because it simply emits water. In "hard-to-abate" sectors like steel, cement, shipping and aviation, where green alternatives do not exist, replacing fossil fuels with hydrogen could not only drastically eliminate the world's CO2 emissions by 15% but also spark a virtuous demand for electrolyzer capacity (+ 5500 GW) which, in turn, would boost renewable electricity capacity by about 8 times the amount installed today, or the entire electricity produced globally in 2019. Regardless of its use, hydrogen comes with basic challenges. Green hydrogen is 3-5 times more expensive than grey hydrogen (which is made from fossil fuels). Enthusiasts predict that prices will come down by 70%-80%, but even then green hydrogen will need to compete with increasingly cheaper alternatives.

* "Hydrogen Is The Energy of The Future, Up To A Point", [Forbes](#)