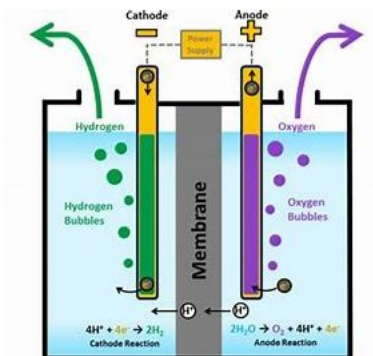


When water is energized, it will get oxygen at the anode and hydrogen at the cathode. This is the method of water electrolysis hydrogen production, so water electrolysis hydrogen production is green hydrogen with zero carbon emission.



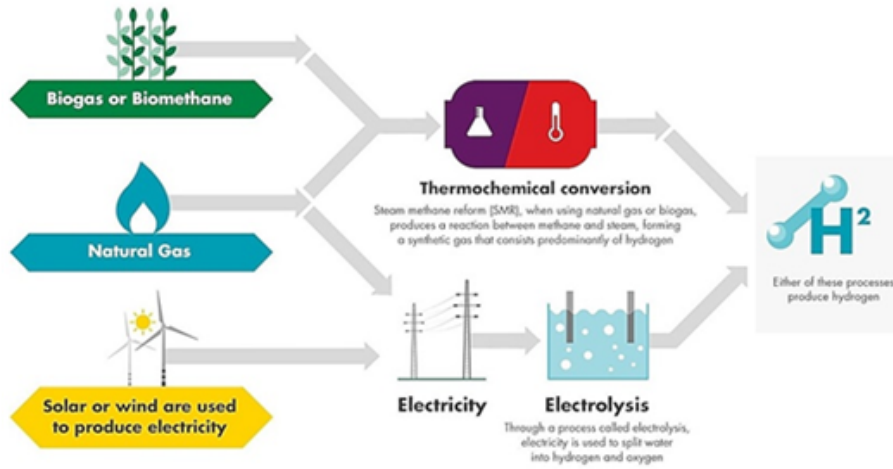
Pros and Cons for three types of green H₂

Abbreviation	Green H ₂	Blue H ₂	Gray H ₂
Method	From water	Natural gas, methanol	Industrial by-products
Carbon emission	(0-4.9)kg	Higher	Extremely high
H ₂ cost	High	lower	lowest
Transportation cost (\$)/per 200km	\$3/kg	\$3/kg	\$3/kg

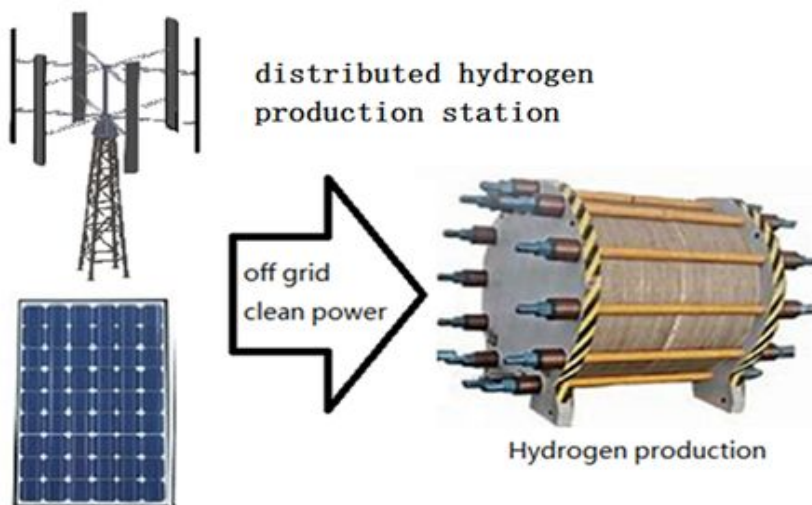
There are also three types of green hydrogen. These are the traditional hydrogen production technology using existing traditional hydrogen production technology and distributed hydrogen production technology. The traditional hydrogen production technology needs stable power. The electrolyzers have to connect to the grid power to keep the stable power for hydrogen production. So, the hydrogen cost is high.



The traditional green hydrogen production technology can use wind/solar power to produce hydrogen. But it still needs grid support for keeping the stable power, which significantly reduces the hydrogen production capacity, so the production cost is still high.

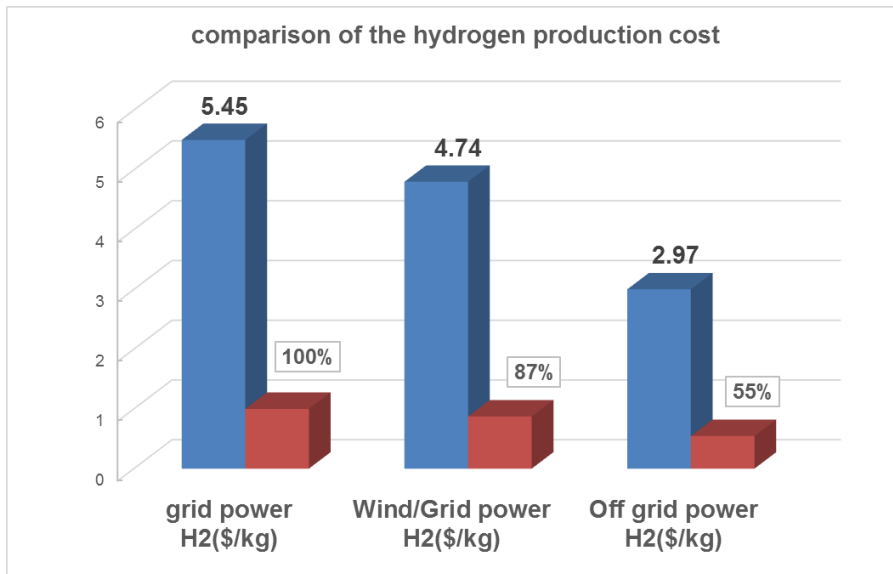


The new green hydrogen production method, our distributed green hydrogen production technology runs on wind/solar power with no grid support needed (see image below). It significantly reduces the hydrogen production costs and the production can be done locally with customized equipment, that means no transportation costs.



Using our distributed hydrogen production technology, the hydrogen cost is 45% lower than traditional technology, which does not include transportation cost savings.

So the distributed green hydrogen fueling system can also be used to produce hydrogen for vehicle fuel in the future.



Production system	Equipment investment	H2 cost (\$)/kg
Distributed hydrogen system	clean power + hydrogen equipment	2.97
Existing hydrogen system	clean power + grid + hydrogen equipment	4.74
Traditional system	grid + hydrogen equipment	5.45