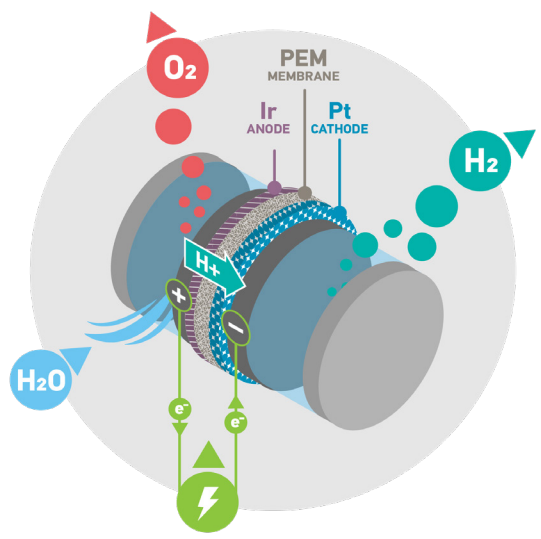


Inside a PEM electrolyser



PLATINUM AND THE HYDROGEN ECONOMY

Why hydrogen is driving platinum demand growth

The need to decarbonise is more acute than ever and platinum-based technologies have a significant role to play in the energy transition, helping to deliver meaningful CO₂ reduction.

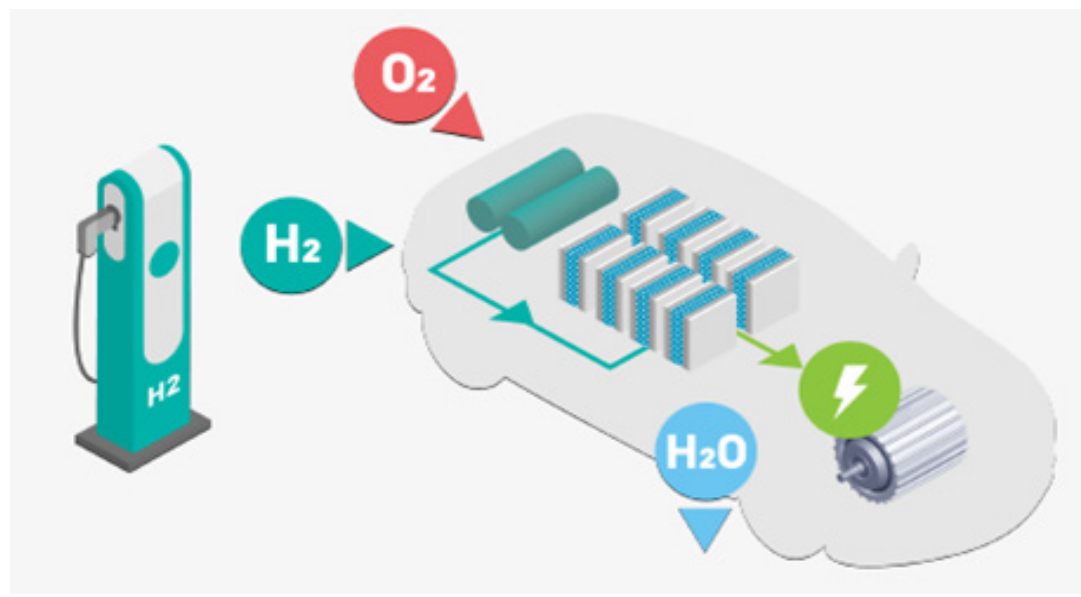
Proton exchange membrane (PEM) technology uses platinum catalysts in two key applications – electrolyser to produce hydrogen and hydrogen fuel cells to produce electricity. Fuel cell electric vehicles (FCEVs) are a major market for hydrogen fuel cells.

A PEM electrolyser can produce carbon-free green hydrogen from renewable energy, and if a FCEV is powered with green hydrogen, it

provides completely emissions-free and fossil-fuel-free transportation.

Platinum-based PEM technologies that enable the use of green hydrogen in decarbonisation could deliver up to 11 per cent of global CO₂ reduction targets by 2030.

While hydrogen-related platinum demand is currently relatively small, it is expected to grow substantially in the medium-term, becoming a meaningful component of global platinum demand by 2030, and potentially the largest demand segment for platinum by 2040.

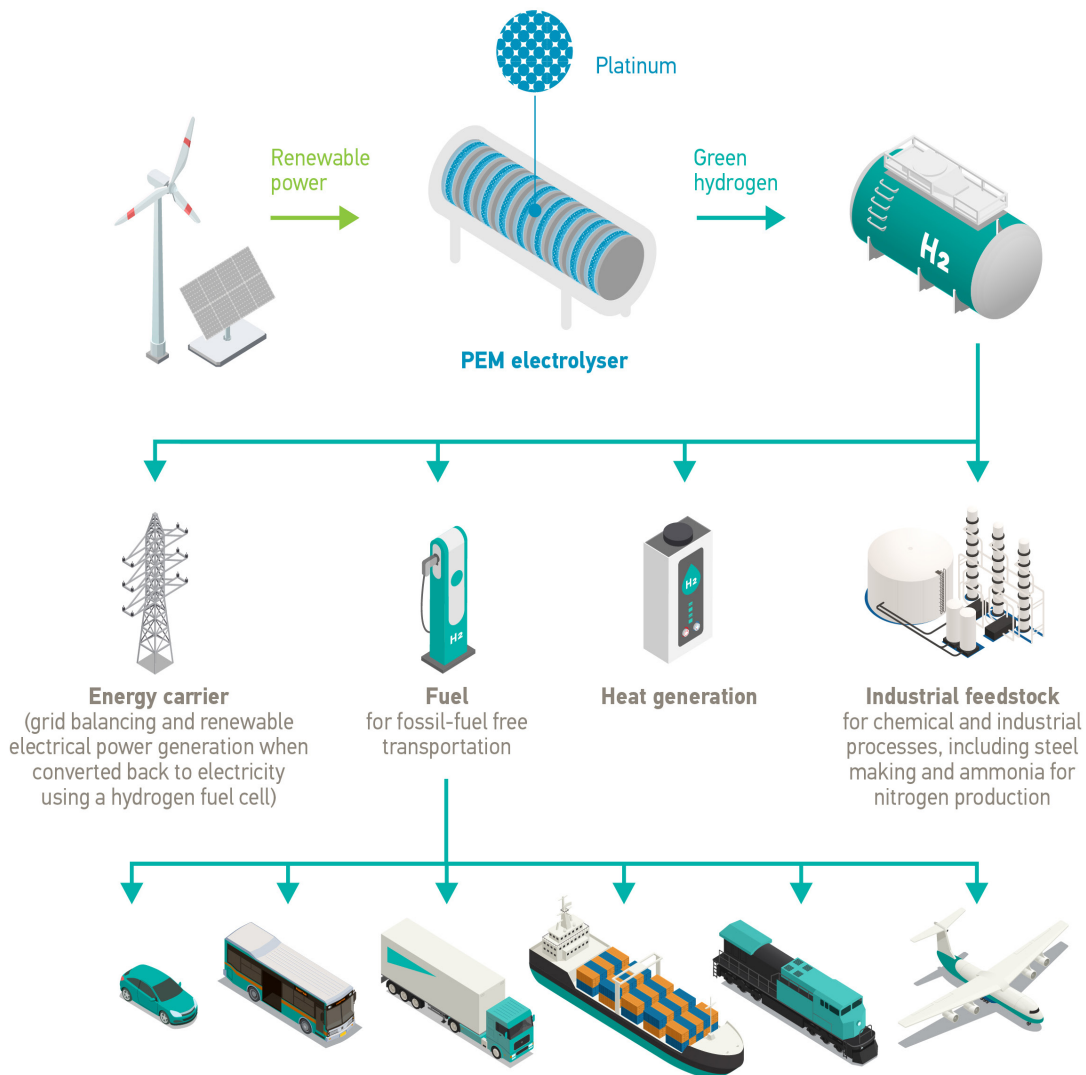


FCEVs provide completely emissions-free transportation

Demand upside

An emergent new end-use for a commodity is a relatively rare occurrence and somewhat unique to platinum at this point in time, which only strengthens the investment case for platinum, particularly in a deficit market.

A new infographic from the World Platinum Investment Council sets out why platinum unlocks the hydrogen economy and how this is creating a new end-use demand segment for platinum.



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