



Catalyst coated membrane technology for PEM electrolysis

Driving scale and efficiency in the electrolysers of today
and the generation of the future



Generate Green Hydrogen Through PEM Water Electrolysis

PEM electrolyzer hydrogen production products are safer, cleaner, smaller, lighter, and more responsive than alkaline technology alternatives. Utilizing pure water instead of corrosive potassium hydroxide means far less maintenance and lower cost of ownership.

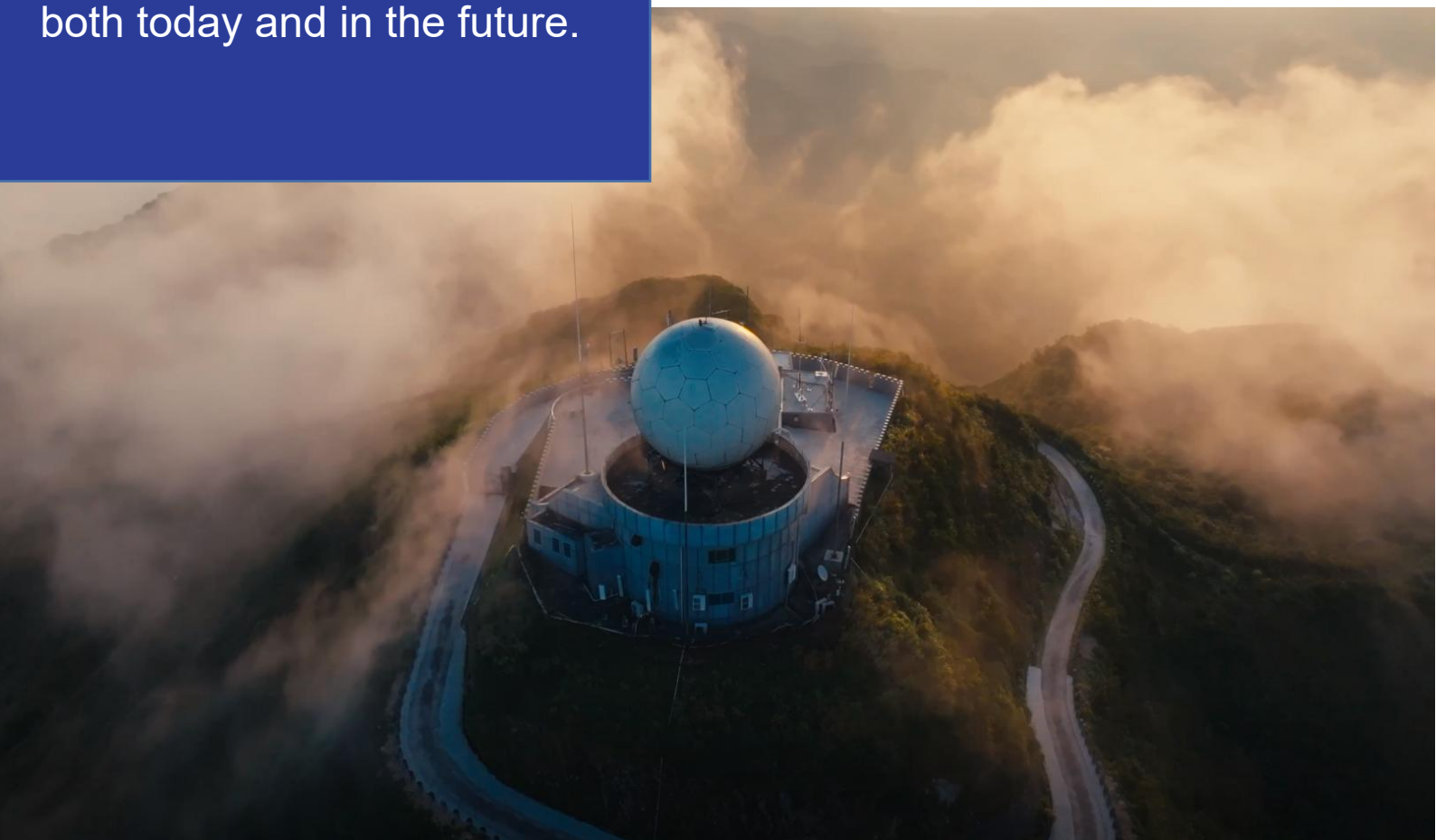
At Apter Power, we develop and manufacture high-performance CCM technology at scale. Working closely with our customers, we deliver a design that meets their needs both today and in the future.

Green hydrogen for decarbonisation

by focusing on the manufacture of catalyst coated membrane (CCM) technology for proton exchange membrane (PEM) electrolyser systems.

Innovative CCM technology

CCMs are the heart of PEM electrolyzers, facilitating the electrochemical reactions to take place and enabling hydrogen to be produced.





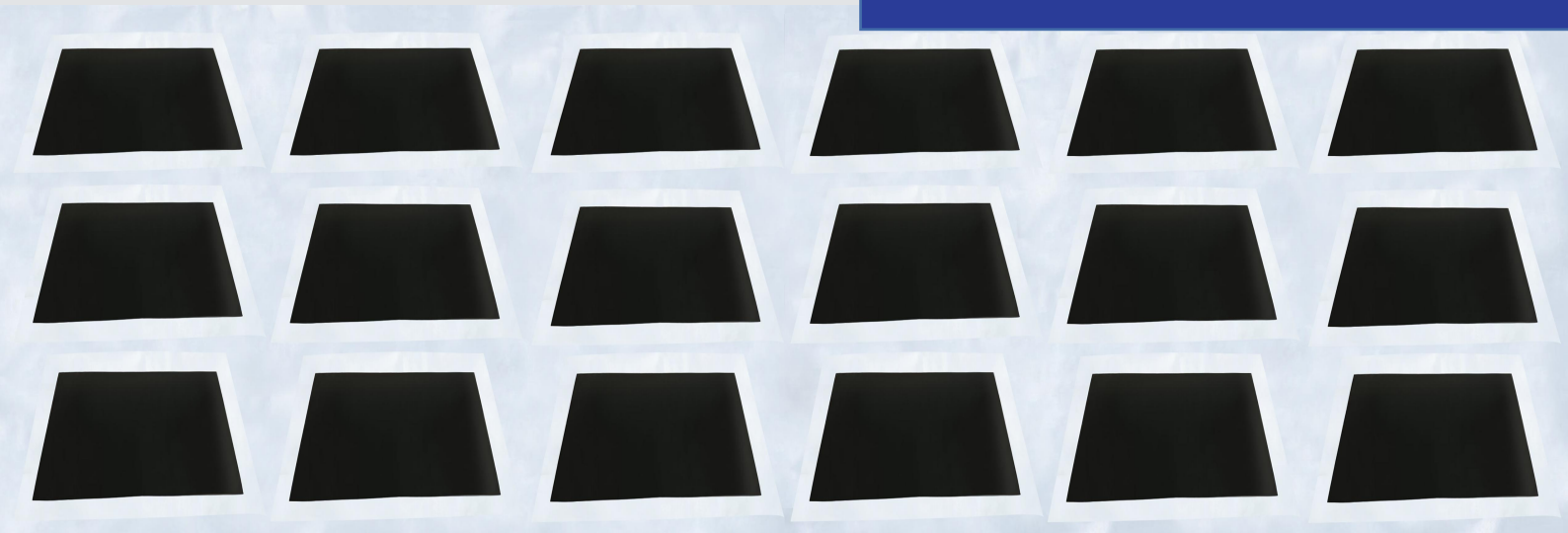
How do CCMs work?

CCMs consist of precisely structured catalysts typically platinum (cathode) and iridium (anode) that are applied to solid membranes in a way which maximises hydrogen production.

Water flows into the CCM, where an iridium catalyst uses electrical energy to break water molecules into oxygen, protons and electrons. The electrons are driven through the external circuit and protons then cross the membrane. A platinum catalyst puts the protons and electrons back together to form hydrogen.

Electrolyzer Products

For markets including heavy industry, e-mobility and energy storage, Apter Power electrolyzers offer industry-leading robust and dependable performance.



Renewable Generation & Storage

Electrolyzers use electricity to split water into hydrogen and oxygen. Hydrogen storage captures the power of clean energy for later use.

Power to Power

Not one renewable electron should go to waste. Green hydrogen enables renewable energy to be accessed by anyone at anytime.

Power to X

Refineries and chemical, steel, and fertilizer producers can reduce their carbon footprint with green hydrogen.

Power to Mobility

Hydrogen fueling stations for fuel cell-powered buses, cars, trains, forklifts, trucks and other vehicles.

Three Key Markets for Electrolytic Hydrogen

Who we are?

Apter Power is a technical specialist in Green Hydrogen Services, developing cutting-edge technology to design and produce PEM (proton exchange membrane) electrolyzers to meet new uses of hydrogen in transportation, industry and energy storage.