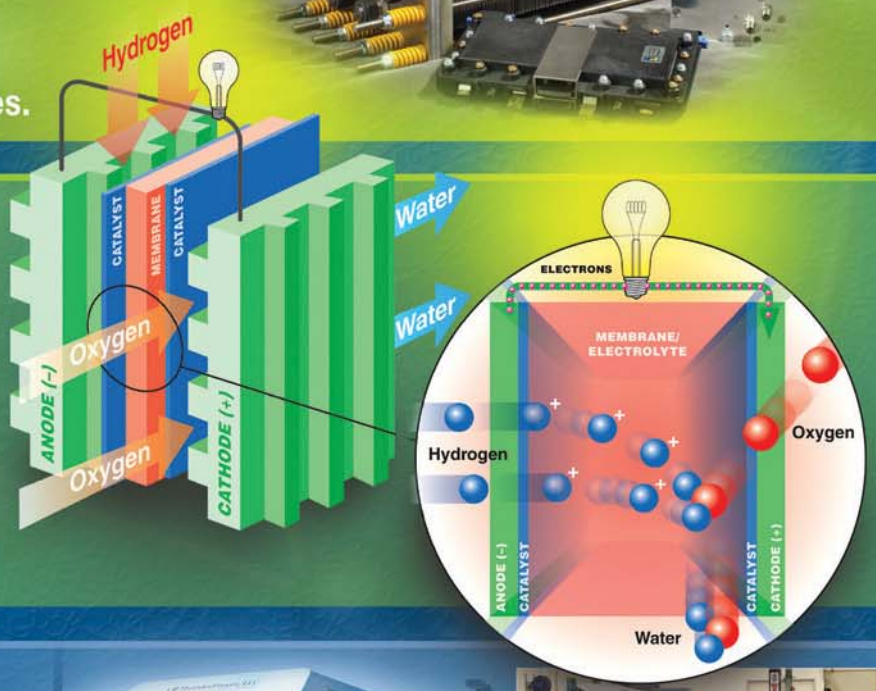
Fuel Cells: Making Power from HYDROGEN

What Is A Fuel Cell?

- Electrochemical device that converts hydrogen directly into electricity in a reaction with oxygen.
- Storing energy with Hydrogen is similar to battery storage, but unlike batteries, fuel cells provide continous and adaptable power as long as fuel is provided.
- Only emissions are water and heat if pure hydrogen is used
- No moving parts, so low maintenance and long lifespan.
- More efficient, quieter, and cleaner than internal combustion engines.

How Does A Fuel Cell Work?

- Each hydrogen atom is split into a proton and an electron with the aid of a platinum catalyst.
- The protons pass through an electrolyte membrane.
- The electrons must go around the membrane through a circuit, doing work along the way.
- Finally, the protons and electrons recombine with oxygen to form water and heat.



How Are Fuel Cells Used?

In Transportation –

- Buses in Los Angeles, Chicago, Vancouver, and Germany.
- Prototypes by all major automakers for the U.S. and global markets.

For Power Generation –

- On-site power for houses and businesses.
- On-site and mobile military applications.
- Space vehicle power and fresh water.