

Future of Mobility Glossary

◆ **Hydrogen Fuel Cell**

A device that combines hydrogen and oxygen to produce electricity, with water vapor as the only emission.

→ It's like a mini power plant that runs silently under the hood of hydrogen-powered vehicles.

◆ **Green Hydrogen**

Hydrogen produced using renewable energy (like solar or wind) to power electrolysis — the cleanest form of hydrogen.

→ It's seen as a key player in decarbonizing hard-to-electrify sectors like heavy industry and transport.

◆ **Electrolysis**

A process that uses electricity to split water (H_2O) into hydrogen (H_2) and oxygen (O_2).

→ When powered by renewables, it creates a clean, sustainable source of hydrogen with no emissions.

◆ **Fuel Cell Electric Vehicle (FCEV)**

A vehicle powered by electricity from a hydrogen fuel cell rather than a battery.

→ Unlike battery EVs, FCEVs can refuel in minutes and are ideal for long-distance or commercial use.

◆ **Zero Emissions**

A term used when a vehicle or energy source emits no greenhouse gases during operation.

→ It's the gold standard for sustainability, especially in the fight against climate change.

◆ **Hydrogen Economy**

An economic system where hydrogen plays a central role in powering transportation, industries, and homes.

→ Advocates believe it could replace fossil fuels in many areas, enabling cleaner growth worldwide.

◆ Refueling Infrastructure

The network of hydrogen refueling stations — currently a limiting factor in the adoption of hydrogen vehicles.

→ Building this infrastructure is essential for making hydrogen vehicles practical for everyday users.

◆ Blue Hydrogen

Hydrogen produced from natural gas with carbon capture technology — not as clean as green hydrogen but lower emission than traditional fuels.

→ It serves as a potential transitional step while green hydrogen scales up.

◆ Mobility Transition

The global shift from fossil fuel-based transportation to cleaner, more sustainable mobility solutions.

→ This includes electric vehicles, hydrogen power, and smarter infrastructure planning.

◆ Hydrogen Combustion Engine

An alternative to fuel cells, using hydrogen in an internal combustion engine (like a regular gas car) but with lower emissions.

→ Though less efficient than fuel cells, it offers an easier transition for some vehicle manufacturers.

Driving the Future

The Transition from EV to H2V, Electric, Hydrogen or Both? The hydrogen revolution is upon the world but the disasters of the past are haunting.

[View the book here](#)

