

HYDROGEN

TERMS TO KNOW

Clean Hydrogen

Hydrogen produced with a carbon intensity equal to or less than 4 kilograms of carbon dioxide-equivalent produced at the site of production per kilogram of hydrogen produced.

Compressed Hydrogen Gas (CHG)

Hydrogen gas compressed to a high pressure and stored at the surrounding temperature.

Cryogenic or Liquid Hydrogen

Hydrogen that is liquefied at extremely low temperatures.

Electrolysis

A hydrogen production method that separates water into hydrogen and oxygen atoms using electricity.

Fuel cell

A system (virtually identical to batteries) that electrochemically converts hydrogen and oxygen (sometimes natural gas and oxygen) to electricity, heat, and water.

Fuel cell stack

A connection of individual fuel cells to create more voltage.

Pyrolysis

The thermal breakdown of materials at high temperatures.

Reformer

The device used to generate hydrogen from fuel for use in fuel cells.

Renewable hydrogen production

Hydrogen produced with:
Electricity from a renewable energy source to create hydrogen gas from water
or
Renewable natural gas to produce hydrogen gas.

Steam Reforming

A method to produce hydrogen through reacting a hydrocarbon fuel with steam, it is commonly used for bulk generation.

“Zero-emission motor vehicle” is a motor vehicle that is propelled by:

1. An electric motor that draws electricity from a battery that has a capacity of not less than four kilowatt hours and is capable of being recharged from an external source of electricity; or
2. Power derived from one or more cells which convert chemical energy directly into electricity by combining oxygen with hydrogen fuel which is stored on board the vehicle in any form and may or may not require reformation prior to use.