

What is White Hydrogen?

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About White Hydrogen

- White hydrogen is also referred to as “natural,” “gold” or “geologic” hydrogen.
- It is naturally produced in the Earth’s crust and is considered a potential clean energy.
- It generally exists combined with other molecules.
- White hydrogen has several advantages over other types of hydrogen
 - It causes no CO2 emissions when used as a fuel.
 - It is compatible with existing infrastructure and technologies for hydrogen production and utilization.
 - It is cheaper and more efficient than steam reforming or electrolysis.
 - It is abundant and renewable in nature.
- Its deposits have been found across the world, including in the US, eastern Europe, Russia, Australia, France and other countries.
- It is estimated that globally there could be tens of billions of tons of white hydrogen.

Types of Hydrogen

- Grey Hydrogen: It is produced via coal or lignite gasification (black or brown), or via a process called steam methane reformation (SMR) of natural gas or methane (grey). These tend to be mostly carbon-intensive processes.

- Blue Hydrogen: It is produced via natural gas or coal gasification combined with carbon capture storage (CCS) or carbon capture use (CCU) technologies to reduce carbon emissions.
 - Green Hydrogen: It is produced using electrolysis of water with electricity generated by renewable energy.
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Q1) What is Hydrogen?

It is the lightest and most abundant chemical element in the universe. It is the simplest element, consisting of just one proton and one electron. It is highly reactive and forms various compounds with other elements.

Source: [Scientists Have Discovered 'White Hydrogen' Beneath France. How It Can Help Save the Earth | EXPLAINED](#)

Source: <https://vajiramandravi.com/current-affairs/white-hydrogen/>

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