

Green Hydrogen Market Set to Reach USD 200 billion - A decade of explosive growth ahead at 21% CAGR

Market Intelligence report on Green Hydrogen Market by DataM Intelligence identifies a USD 200 billion opportunity by 2027 and estimates a 21% CAGR till 2027.

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/EINPresswire.com/ -- GREEN HYDROGEN MARKET SET TO GROW AT 21% CAGR



The [global green hydrogen market](#) is estimated to reach USD 199.436 billion by 2027 growing at a CAGR of 20.9%. The world is undergoing an energy transition towards cleaner fuels, and hydrogen is poised to play an important role in this transition. According to the International Energy Agency (IEA), the current production of hydrogen mainly occurs from chemical and

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Automotive and Transportation will lead the application with governments employing alternative fuels in public transportation. India will emerge as a global hub for Green Hydrogen by 2030.”
Research Director, Energy and Power DataM Intelligence

petrochemical sources and is responsible for more than 900 million tonnes of CO₂ emissions annually.

Furthermore, according to IEA, the total global hydrogen demand was around 94 million tonnes in 2020 and is expected to increase further to 180 million tonnes by 2030. Hydrogen is sourced from environmentally friendly methods such as electrolysis to reduce carbon emissions. The growth in global green hydrogen production is expected to significantly reduce carbon emissions while expanding the availability of hydrogen for various applications.

HIGH COSTS CONTINUE TO HAUNT GREEN HYDROGEN -

GREY IS STILL

One of the major challenges for global market growth has been the high cost of green hydrogen. The high costs are mainly due to the complex technologies involved in the production and

relatively low yield. The rating agency ICRA estimates that the levelized cost of green hydrogen production ranges between USD 5.5 to USD 6 per kg. The agency further stated that increasing the competitiveness of green hydrogen against grey hydrogen would require a reduction in capital costs and greater improvements in production technologies. It is estimated that with technological advances and economies of scale, the price of green hydrogen will drop to around USD 1.5 per kg by 2030.

View the complete study here @ <https://www.datamintelligence.com/research-report/green-hydrogen-market>

HIGHLY ACTIVE R&D - TRANSPORTATION TURNING GREEN WORLD-WIDE

Green hydrogen is the primary fuel source for fuel cells in energy production. New technologies are being developed to enhance fuel cell performance and reduce costs. In December 2022, scientists from the Beijing University of Chemical Technology developed a new platinum-cobalt alloy catalyst for fuel cells that generated increased performance while reducing costs. Green hydrogen is also used to power hydrogen fuel cell-based transportation solutions, including passenger cars, commercial vehicles and trains. In August 2022, Germany launched the world's first hydrogen fuel cell train service. In December 2022, China launched its first hydrogen fuel cell train. Many automotive manufacturers are developing and launching new fuel-cell vehicle models. In January 2023, M.G. Motors unveiled its Euniq 7 fuel cell MPV at the AutoExpo India 2023.

INDIA AND US GOVERNMENT DRIVE THE GREEN INITIATIVE

One of the major avenues of growth in the global market is the strategies adopted by developing countries such as India. India has identified green hydrogen as a key sustainable fuel to achieve decarbonization goals without impacting economic growth. In January 2023, the government of India earmarked ₹ 19,744 crores (USD 2.41 billion) for the national green hydrogen mission to expand green hydrogen production to nearly 5 million tonnes a year by 2030. India is also developing Vande Metro, a series of green hydrogen-powered metro trains expected to start operations by the end of 2023. Developed countries are taking the lead in innovating new solutions. In the U.S, various programs are underway to develop new green hydrogen technologies. In June 2021, the U.S. Department of Energy (DoE) launched the hydrogen earth shot initiative to reduce the cost of green hydrogen to USD 1 per kg by the end of this decade. The [market for green hydrogen in North America](#) is expected to reach 7.865 billion by 2027 growing at a CAGR of 22.8%.

SHELL AND AIR PRODUCTS & CHEMICALS INC ARE AMONG THE MOST ACTIVE COMPANIES

The major global green hydrogen market players are mainly multinational energy and chemical companies. Expanding production capacity and developing new green hydrogen technologies are some of the chief strategies employed by the major players to stay competitive in a fast-growing market. Shell is a UK-based diversified multinational energy company developing green hydrogen to augment its energy portfolio. In September 2022, Shell announced the development of new catalyst technologies to purify green hydrogen. Air Products and Chemicals Inc. is an

American multinational chemical company. The company announced an investment of USD 500 million to build a new green hydrogen production facility in New York, U.S.

GLOBAL GREEN HYDROGEN MARKET REPORT SCOPE

By Technology

- Alkaline Electrolyzer
- Proton Exchange Membrane Electrolyzer
- Solid Oxide Electrolyzer

By Renewable Sources

- Wind Energy
- Solar Energy
- Geothermal
- Hydropower

By Application

- Power Generation
- Transport

By End-User

- Industrial
- Mobility
- Chemical
- Power
- Grid Injection

By Region

North America

- U.S.
- Canada
- Mexico

Europe

- Germany
- UK
- France
- Italy
- Russia
- Rest of Europe

South America

- Brazil

- Argentina
- Rest of South America

Asia-Pacific

- China
- India
- Japan
- Australia
- Rest of Asia-Pacific

Middle East and Africa

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Sai Kiran

DataM Intelligence 4Market Research LLP

+1 877-441-4866

info@datamintelligence.com

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