

# Hydrogen Electrolyzer Market Poised for Explosive Growth Fueled by Green Hydrogen Push

*hydrogen electrolyzer market is on the cusp of a transformative era driven by the global shift towards clean energy and the growing importance of green hydrogen*

VANCOUVER, BRITISH COLUMBIA, CANADA, June 20, 2024

/EINPresswire.com/ -- The [hydrogen electrolyzer market](#) is on the cusp of a transformative era, driven by the global shift towards clean energy and the growing importance of green hydrogen. This press release delves into the key trends, drivers, challenges, and opportunities shaping this exciting market.



During the forecast period, the market is expected to benefit from the growing popularity of hydrogen energy. Adoption of hydrogen electrolyzer is expected to grow steadily in the coming years with the implementation of stringent government norms to protect environment by reducing pollution. Also Increasing demand for green energy, stringent regulations associated with a high carbon footprint, and surging investment to develop the industrial sector globally are a few key factors expected to propel growth in the hydrogen electrolyzer market. Also, substantial growth in the adoption of hydrogen fuel in the transportation sector across other regions is estimated to drive growth in the market.

Get Free Sample PDF Copy Of This Report@ <https://www.emergenresearch.com/request-sample/2486>

## Market Overview and Trends:

The global hydrogen electrolyzer market is expected to reach a staggering USD 3901.7 million by 2032, registering a remarkable compound annual growth rate (CAGR) of 24.2% according to Emergen Research. This growth is fueled by:

**Rising government initiatives:** Countries worldwide are implementing ambitious clean energy targets and hydrogen strategies, promoting the development of green hydrogen production through electrolyzers.

**Focus on decarbonization:** Electrolyzers offer a clean and sustainable method for hydrogen production, aligning perfectly with decarbonization goals across various industries.

**Technological advancements:** Advancements in electrolyzer technology are leading to improved efficiency, reduced costs, and larger capacities, making them more commercially viable.

#### Market Drivers:

**Growing demand for green hydrogen:** Green hydrogen, produced using renewable energy sources and electrolyzers, is crucial for achieving net-zero emissions targets.

**Supportive government policies:** Government incentives, subsidies, and tax breaks are encouraging investments in electrolyzer manufacturing and deployment.

**Cost reduction of electrolyzers:** Technological advancements and economies of scale are bringing down the cost of electrolyzers, making them more accessible for large-scale projects.

#### Market Restraints:

**High upfront capital costs:** Despite cost reductions, electrolyzers still require significant upfront investments, hindering wider adoption.

**Limited availability of renewable energy:** The success of green hydrogen heavily relies on the availability of clean electricity sources.

**Lack of infrastructure:** Building a robust hydrogen infrastructure, including storage and transportation networks, remains a challenge.

#### Growth Opportunities:

**Technological innovations:** Continued advancements in materials, catalysts, and electrolyzer design will further improve efficiency and reduce costs.

**Development of large-scale projects:** Large-scale hydrogen production projects using electrolyzers will significantly contribute to market growth.

**Expansion into new applications:** Hydrogen fuel cell electric vehicles (FCEVs) and other hydrogen-powered applications are creating new markets for electrolyzers.

## Key Market Insights:

Polymer Electrolyte Membrane (PEM) electrolyzers are currently the dominant technology due to their scalability and operational flexibility.

Alkaline Electrolyzers (AEL) are expected to gain traction in the coming years due to their lower cost and higher tolerance for impurities in the water feedstock.

Solid Oxide Electrolyzers (SOEL) offer high efficiency but require high operating temperatures, limiting their widespread adoption currently.

The Asia Pacific region is expected to lead the market growth due to strong government support and growing demand for clean energy in countries like China, Japan, and South Korea.

Browse Detailed Summary of Research Report with

TOC: <https://www.emergenresearch.com/industry-report/hydrogen-electrolyzer-market>

## SWOT Analysis:

### Strengths:

Clean and sustainable hydrogen production

High efficiency and scalability of electrolyzers

Growing government support and incentives

### Weaknesses:

High upfront capital costs

Limited availability of renewable energy

Lack of mature hydrogen infrastructure

### Opportunities:

Technological advancements for cost reduction and efficiency improvement

Development of large-scale green hydrogen projects

Expansion into new applications like FCEVs

Threats:

Volatile prices of raw materials

Stringent environmental regulations

Competition from alternative hydrogen production methods

Strategic Developments and M&A Activity:

On 31 May 2023, GreenZo Energy, a renewable energy advisory firm headquartered in New Delhi, declared its intentions to construct a fresh green hydrogen electrolyzer facility with a 250-megawatt (MW) capacity, slated for completion by the conclusion of 2025. The company is committed to investing an estimated amount ranging from Rs. 300 crores to Rs. 400 crores for the establishment of this plant. The primary objective is to reduce India's dependence on foreign imports for critical equipment in this sector.

Hydrogen Electrolyzer Top Companies and Competitive Landscape

The global hydrogen electrolyzer market is fragmented, with many large and medium-sized players accounting for the majority of market revenue. Major players are deploying various strategies, entering into mergers & acquisitions, strategic agreements & contracts, developing, testing, and introducing more effective solutions.

Some major players included in the global hydrogen electrolyzer market report are:

Nel ASA.

Siemens

McPhy Energy S.A.

ITM Power PLC

Gaztransport & Technigaz

Giner Inc

Tianjin Mainland Hydrogen Equipment Co., Ltd.

Green Hydrogen Systems

iGas energy GmbH

Beijing CEI Technology Co., Ltd.

Next Hydrogen

Air Liquide

Ballard Power Systems

Enapter S.r.l.

Plug Power Inc.

Bloom Energy

Pure energy centre

Idro Energy

Erre Due s.p.a

Swiss Hydrogen SA

Hydrogen Electrolyzer Market Segment Analysis

For the purpose of this report, Emergen Research has segmented the global hydrogen electrolyzer market based on product type, capacity, outlet pressure, end-use, and region:

Product Type Outlook (Revenue, USD Million; 2019–2032)

Proton Exchange Membrane (PEM) electrolyzer

Alkaline electrolyzer

Solid oxide electrolyzer

Capacity Outlook (Revenue, USD Million; 2019–2032)

Low ( $\leq 150$  kW)

Medium (150kW-1mw)

150-400 kw

400-750 kW

750-1mW

Hight (> 1mW)

1-10 mW10-20 mW

10-20 mW

Above 20 mW

Outlet Pressure Outlook (Revenue, USD Million; 2019–2032)

Low (<=10 Bar)

Medium (150 Bar-40 Bar)

High (>40 Bar)

End-Use Outlook (Revenue, USD Million; 2019–2032)

Ammonia

Methanol

Refining/ Hydrocarbon

Electronics

Energy

Power to Gas

Transport

Metal Production & Fabrication

Pharma & Biotech

Food & Beverages

Glass Industry

Other Industrial

Ask for Customization: <https://www.emergenresearch.com/request-for-customization/2486>

Country scope:

U.S., Canada, Mexico, Germany, U.K., France, Spain, BENELUX, Rest of Europe, China, India, Japan, South Korea, Rest of APAC, Brazil, Rest of LATAM, Saudi Arabia, UAE, Israel, and Rest of MEA

Eric Lee

Emergen Research

+91 90210 91709

sales@emergenresearch.com

Visit us on social media:

[Facebook](#)

[X](#)

[LinkedIn](#)

---

This press release can be viewed online at: <https://www.einpresswire.com/article/721575573>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2024 Newsmatics Inc. All Right Reserved.