

Steam Methane Reforming Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented, By Feedstock (Natural Gas, Liquefied Natural Gas, Methanol, Coal), By Conversion Technology (Steam Reforming, Autothermal Reforming, Partial Oxidation, Catalytic Partial Oxidation), By Application (Petroleum Refining, Chemicals, Power Generation, Transportation, Industry Energy), By Region, By Competition, 2020-2030F

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## **Abstracts**

### Market Overview

The Steam Methane Reforming (SMR) Market was valued at USD 123.56 Billion in 2024 and is projected t%li%reach USD 170.54 Billion by 2030, growing at a CAGR of 5.36% during the forecast period. SMR is a key process in global hydrogen production, where methane—primarily from natural gas—is reacted with steam at high temperatures t%li%yield hydrogen, carbon monoxide, and carbon dioxide. This method remains the dominant and most cost-efficient route for large-scale hydrogen generation, particularly within the oil refining, ammonia, methanol, and petrochemical industries. The SMR market is expanding due t%li%the increasing focus on clean energy transitions, where hydrogen is central t%li%industrial decarbonization. Integrating carbon capture, utilization, and storage (CCUS) technologies int%li%SMR operations is gaining traction as producers seek t%li%lower the carbon footprint of hydrogen production and align with emerging climate policies and net-zer%li%goals.



**Key Market Drivers** 

Growing Demand for Hydrogen Across Industrial Applications

The accelerating demand for hydrogen across various industrial sectors is a major driver of the SMR market. In oil refining, hydrogen is critical for hydrocracking and desulfurization t%li%produce low-sulfur fuels that meet global emissions regulations. Tightening environmental standards have significantly increased hydrogen requirements in this segment. Similarly, the ammonia industry relies heavily on hydrogen, particularly for fertilizer manufacturing, a sector seeing continuous growth due t%li%expanding global food demand. Additionally, hydrogen plays a key role in methanol production and other chemical processes, where consistent and large-scale supply is essential. SMR remains the preferred production route in these applications due t%li%its economic efficiency, especially in regions with abundant natural gas availability.

Key Market Challenges

Environmental Concerns and Carbon Emissions Associated with Steam Methane Reforming

A critical challenge for the SMR market is its inherent carbon intensity. Producing hydrogen via SMR results in substantial CO? emissions—typically 9 t%li%10 tons of CO? for every ton of hydrogen produced—posing a problem in a global environment focused on emissions reduction. As governments implement carbon taxes, emissions caps, and regulatory frameworks aligned with climate commitments, conventional SMR operations face mounting cost pressures and reputational risks. Investors and stakeholders are als%li%increasingly prioritizing ESG compliance, making carbon-intensive production methods less attractive. For industries such as refining and chemicals, which are major consumers of hydrogen, adapting SMR technology t%li%align with stricter climate policies has become a necessary but challenging task, requiring significant investment in emission control and carbon capture solutions.

**Key Market Trends** 

Rising Demand for Hydrogen Fuel Driving Growth in Steam Methane Reforming

The growing global focus on hydrogen as a clean energy vector is fueling the expansion of the SMR market. While green hydrogen via electrolysis is gaining attention, SMR



continues t%li%dominate due t%li%its cost-effectiveness and established infrastructure. Governments across the U.S., EU, and Asia-Pacific are implementing national hydrogen strategies that include ramping up hydrogen production using SMR, while promoting CCUS integration t%li%reduce associated emissions and create "blue hydrogen." The transportation sector, especially in fuel cell vehicles and heavy-duty trucking, is a major contributor t%li%rising hydrogen demand. Industrial sectors such as ammonia production, steelmaking, and petrochemicals—currently responsible for the majority of hydrogen use—are als%li%transitioning t%li%lower-emission hydrogen sources. As a result, SMR with CCUS is increasingly viewed as a transitional technology that can deliver near-term hydrogen volumes while supporting decarbonization. Companies are upgrading existing plants with digital optimization tools and investing in emission control systems t%li%remain competitive in a carbon-conscious marketplace. With expanding use cases and supportive government policies, SMR is expected t%li%maintain a crucial role in the hydrogen economy over the coming years.

## **Key Market Players**

Air Liquide S.A.

Air Products and Chemicals, Inc.

ALLY HI-TECH CO., LTD.

Linde plc

HyGear B.V.

Mahler AGS GmbH

The Messer SE & Co. KGaA

Plug Power Inc.

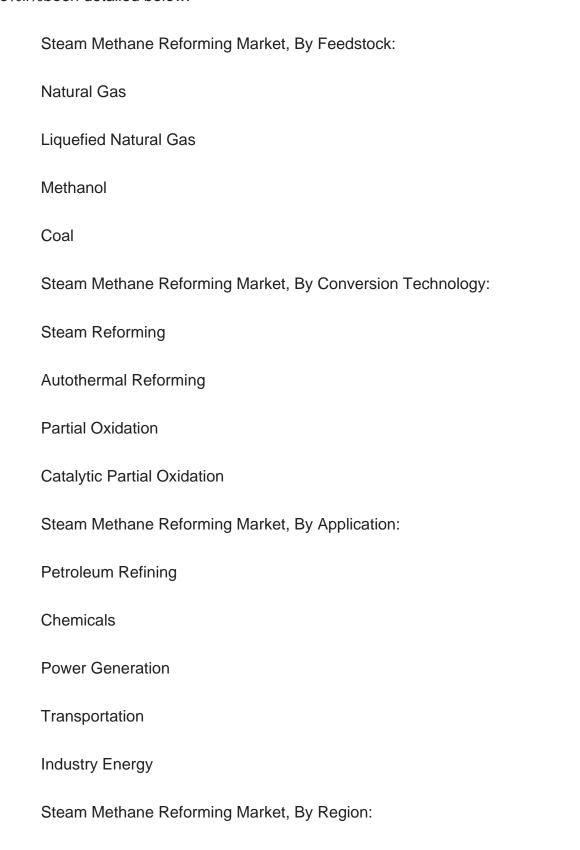
Hyster-Yale, Inc.

Hexagon Composites ASA

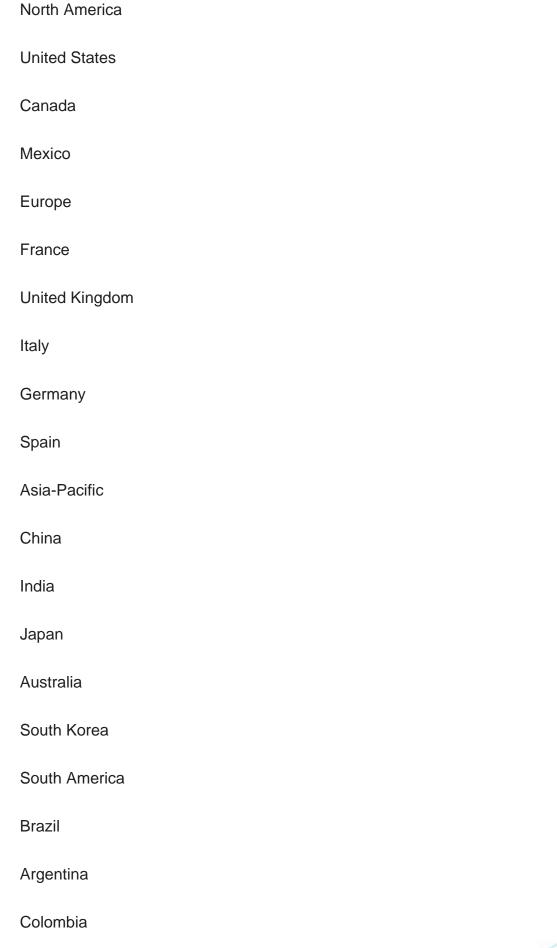
## Report Scope:



In this report, the Global Steam Methane Reforming Market has been segmented int%li%the following categories, in addition t%li%the industry trends which have als%li%been detailed below:









t%li%five).

Middle East & Africa
South Africa
Saudi Arabia
UAE
Kuwait
Turkey
Competitive Landscape
Company Profiles: Detailed analysis of the major companies present in the Global Steam Methane Reforming Market.
Available Customizations:
Global Steam Methane Reforming Market report with the given market data, TechSc Research offers customizations according t%li%a company's specific needs. The following customization options are available for the report:
Company Information
Detailed analysis and profiling of additional Market players (up



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