

2024 Hydrogen and Ammonia Research Review

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Abstracts

Research Review Scope

Hydrogen and ammonia are the future of the clean energy era and a game-changer that can revolutionize every industry, from transportation to steel. Using hydrogen fuel cell-powered vehicles is like imagining vehicles emitting water and heat instead of harmful emissions. Green hydrogen is produced using solar and wind power, producing a fuel that is incredibly powerful and sustainable. It is the key to a future where we can enjoy clean air. In the era of a strong urge to move towards energy transition and to address climate change, these commodities and the revolutionary advancements in associated technologies have emerged as critical elements in the global pursuit of achieving the goal of decarbonization. These are among the most versatile energy carriers and, thus, hold significant potential to revolutionize hard-to-abate industries. These commodities not only provide a way for a cleaner, more secure energy future but also offer opportunities to industry players to expand in new industrial applications.

The transportation industry that uses around 20% of steel; green steel (produced with green hydrogen) presents lucrative growth avenues for steel manufacturers. Similarly, it is attracting other industries to invest and expand their sustainable production capabilities. Green hydrogen aligns with global efforts to reduce GHG emissions and reduce climate change. It also encourages energy security by offering solutions for energy diversification and domestic production opportunities, as it can be produced with renewable energy sources.

The future of green hydrogen mainly depends on renewable energy and electrolyzer capabilities. Hence, for the widespread use of green hydrogen, significant cost reductions in renewable energy sources and large-capacity installations of electrolyzers are required. China is leading in developing electrolyzer and fuel cell technology, whereas MEA and Latin American countries have huge potential for renewable energy

generation. Therefore, synergies among the countries are required.

Research Reviews from BCC Research provide market professionals with concise market coverage within a specific research category. This 2024 Research Review of hydrogen and ammonia provides a sampling of the type of quantitative market information, analysis, and guidance that BCC Research has been developing since its inception in 1971 to help its customers make informed business decisions. This Research Review includes highlights and excerpts from the following reports published by BCC Research in 2024:

ENV060B Green Hydrogen: Global Markets

EGY186B Hydrogen Fuel Cell: Global Markets

EGY146C Hydrogen Storage: Materials, Technologies and Global Markets

FCB059B Global Market for PEM Electrolyzer

ENV068A Global Blue Ammonia Market

After you survey the excerpts in this Research Review, we encourage you to follow up on these topics by checking out the full market research reports associated with each topic. BCC Research looks forward to serving your market intelligence needs in the future.

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