

Summary

- In 2017, the Japanese government announced the world's first national hydrogen strategy, which clearly stated the goal of using hydrogen as a key energy source to achieve carbon neutrality by 2050.
- In this context, the major players in Japan are several Japanese companies, including energy companies and trading companies, which are developing advanced hydrogen technology and are engaged in hydrogen-related businesses. In particular, Japan's hydrogen market is forming an ecosystem centered on the downstream sectors of the supply chain, such as storage and transportation technologies, ammonia fuel derived from hydrogen, and hydrogen mobility.
- On the other hand, Japan's presence in the upstream production process is not significant. Therefore, it is strengthening its cooperation with overseas companies for the research and development of hydrogen production technologies, including green hydrogen. The Japanese government is also supporting these efforts by establishing a global cooperation system.
- Within Japan, domestic companies have made remarkable progress in hydrogen combustion operations in marine transportation and ships. Additionally, overseas companies have been involved in demonstration projects and have demonstrated collaborative efforts for market entry such as the joint establishment of hydrogen stations. Furthermore, to attract overseas companies, the Japanese government is planning to promote the development of laws such as establishing a safety regulation system related to hydrogen, support for the development of supply infrastructure such as tanks and pipelines, and large-scale investment support using blended finance.
- Japan aims to establish the first market in the world for hydrogen energy utilization, particularly in the three fields of hydrogen-powered turbines, fuel cell trucks and hydrogen-based reduced iron. In terms of supply, it is necessary to start enlarging hydrogen carriers and water electrolysis equipment.