

# Japan earmarks \$107 billion for developing hydrogen energy to cut emissions, stabilize supplies

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The Suiso Frontier, a liquefied hydrogen carrier, is berthed in Otaru, northern Japan, on April 14, 2023. Japan's government on Tuesday, June 6, 2023, adopted a revision to the country's plans to use more hydrogen as fuel as part of the effort to reduce carbon emissions. Credit: AP Photo/Hiro Komae, File

Japan's government on Tuesday adopted a revision to the country's plans to use more hydrogen as fuel as part of the effort to reduce carbon emissions.

The plan sets an ambitious target to increase the annual supply by six times from the current level to 12 million tons by 2040. It also pledges 15 trillion yen (\$107 billion) in funding from both private and public sources to build up hydrogen-related supply chains over the next 15 years.

Japan's decarbonization strategy centers on using so-called clean coal, hydrogen and nuclear energy to bridge its transition to renewable energy. Russia's war on Ukraine has deepened concerns over energy security and complicated that effort, but other advanced Western nations are pushing for faster adoption of renewable energy, such as solar, wind and geothermal.

So far, Japan is relying on hydrogen mainly produced using fossil fuels.

Some experts say strategies like commercializing the use of hydrogen and ammonia mainly cater to big business interests and major industries that are heavily invested in fossil fuel-based technologies and have power over the government policies.

The revised plan prioritizes nine strategic areas, including development of water electrolysis equipment, fuel storage batteries and large-size tankers for transporting hydrogen.

"Hydrogen is an industrial sector that can make a triple achievement of decarbonization, stable energy supply and economic growth in one shot," Chief Cabinet Secretary Hirokazu Matsuno said at the Cabinet meeting Tuesday. "We will promote (hydrogen) on a large scale, both demand and supply."



Japan's Chief Cabinet Secretary Hirokazu Matsuno speaks at a press conference in Tokyo Tuesday, June 6, 2023. Japan's government has adopted a revision to the country's plans to use more hydrogen as fuel, setting an ambitious target to spend \$107 billion and increase the annual supply by six times from the current level to 12 million tons by 2040. Credit: Kyodo News via AP

Japan's leaders say they want to turn the country into a "hydrogen society," but the hydrogen industry is still in its initial stages. The government is still drafting legislation to support building necessary infrastructure and supply chains for commercial use of pure hydrogen and ammonia, another source of hydrogen.

At a hydrogen council meeting with industrial leaders last week, Prime

Minister Fumio Kishida said Japan aims to achieve an "Asian zero-emission community," contributing Japanese technology in hydrogen, ammonia and other decarbonization technologies.

"By setting an ambitious goal we aim to make our plans more predictable and encourage long-term investment in developing a large-scale hydrogen supply and demand," Kishida said.

The Cabinet also approved an annual energy report saying that economic sanctions against Russia for its war on Ukraine have increased long-term competition for liquefied natural gas, forecasting that shortages could persist through 2025. European demand for LNG as an alternative to Russian natural gas has pushed LNG prices higher, making it necessary to draw up a long-term strategy for securing stable energy supplies.

Japan adopted a so-called "green transformation" plan in February that calls for promotion of next-generation solar batteries, offshore wind power and renewed use of nuclear energy.

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