

Strengthening our ability to finance supply chains for hydrogen and related technologies¹

Aim to provide JPY 2 trillion in funding for production

Mizuho Financial Group, Inc. (President & Group CEO: Masahiro Kihara) aims to provide JPY 2 trillion in financing for the production and supply of hydrogen and related technologies by 2030. This goal reflects our understanding of the growth in these funding needs.

Hydrogen and related technologies have been identified as a key component for decarbonization across various sectors, including power generation, transportation, and industry, as countries around the world move toward achieving carbon neutrality.

Despite ongoing R&D and feasibility studies in Japan and other countries, hydrogen's widespread adoption is currently hindered by issues that include, aside from the need to generate demand and reduce costs through innovation, companies' ability to secure necessary funding.

As outlined in the Mizuho Sustainability Focus 2023 report, entitled "Sustainability: Path to industrial competitiveness", Mizuho identifies hydrogen as a key component for achieving widespread decarbonization across various sectors. Based on this perspective, we have pursued the following initiatives to promote its extensive use in society.

Mizuho's recent initiatives in hydrogen and related technologies

Initiatives	Examples
1) Involvement in formulating Japanese government strategy	<ul style="list-style-type: none">● Support in formulating roadmaps for use of electrolyzers and fuel cells (Mizuho Research & Technologies)● Conducting research projects for the formulation of hydrogen safety strategies (Mizuho Research & Technologies)
2) Development and commercialization support for key technologies	<ul style="list-style-type: none">● Using digital simulation to support the development and design of fuel cells and electrolyzers (Mizuho Research & Technologies)● Management support for industry-academia-government collaborative research and development projects (Mizuho Research & Technologies)● Advisory service for investing risk capital into venture capital funds focused on startups in the hydrogen production equipment area (Mizuho Securities)

<p>3) Research, analysis, and information dissemination for social implementation of hydrogen</p>	<ul style="list-style-type: none"> ● Research on global policy, market, and technology trends in the hydrogen field (Mizuho Research & Technologies). ● Published reports entitled “How Japan Can Win the Global Competition for Hydrogen”, “How Japan Can Establish a Presence in the Hydrogen Industry – Using Water Electrolyzers”, and “The Potential of Turquoise Hydrogen” (Mizuho Bank)
<p>4) Support for the construction of hydrogen and related technology supply chains</p>	<ul style="list-style-type: none"> ● Support for feasibility studies on hydrogen production and power generation technologies (Mizuho Research & Technologies) <ul style="list-style-type: none"> ➢ Supported feasibility studies and demonstrations for bioenergy carbon capture and storage (BECCS) hydrogen-related projects ➢ Supported regional collaboration and demonstration projects for low-carbon hydrogen technology ● Announced a joint proposal on hydrogen and related technologies with the Development Bank of Japan (Mizuho Financial Group) ● Participation in the Hydrogen Council, a global initiative to promote hydrogen (Mizuho Bank) ● Hosting of the Australian Hydrogen Showcase, a hydrogen event dedicated to promoting cooperation between Japan, Australia, and Thailand in building an international hydrogen supply chain (Mizuho Bank) ● Engaged in local hydrogen-related councils in Japan (Mizuho Bank), including: <ul style="list-style-type: none"> ➢ Akita Prefecture Port Decarbonization Promotion Council ➢ Kawasaki Carbon Neutral Industrial Complex Formation Promotion Council and Kawasaki Carbon Neutral Port Formation Promotion Council ● Provided strategic and financial advisory services for a large-scale green hydrogen/ammonia production project in Africa (Mizuho Securities)
<p>5) Strengthening financing ability</p>	<ul style="list-style-type: none"> ● Arrangement of finance for a large-scale green hydrogen and ammonia production project outside Japan (Mizuho Bank) ● Granting transition loans for the green energy sector, including in the ammonia area (Mizuho Bank) ● Provided financial advisory services to international players in the production and supply of hydrogen and

	<p>related technologies (Mizuho Bank)</p> <ul style="list-style-type: none">● Issued green and transition bonds to finance the construction of a clean hydrogen supply chain (Mizuho Securities)
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Given the growing urgency to set up supply chains for hydrogen and related technologies, which require substantial investment for production facilities, financial institutions have an essential role to play in providing funding. At Mizuho, we aim to offer JPY 2 trillion in financing for the production and supply of hydrogen and related technologies by 2030. By adopting this proactive approach, we will contribute to the development of the supply chains and accelerate hydrogen adoption in society.

To achieve this ambitious aim, we are focusing on three key areas: (1) Developing business strategies focused on hydrogen and related technologies, (2) Establishing a group-wide framework dedicated to supporting hydrogen and related technologies, and (3) Expanding our pool of personnel specialized in related areas. Going forward, we will further expand our initiatives to promote the construction of supply chains for hydrogen and related technologies.

1: “Hydrogen and related technologies” refers to areas including hydrogen, ammonia, and e-methane.