

NEWS RELEASE

October 7, 2024

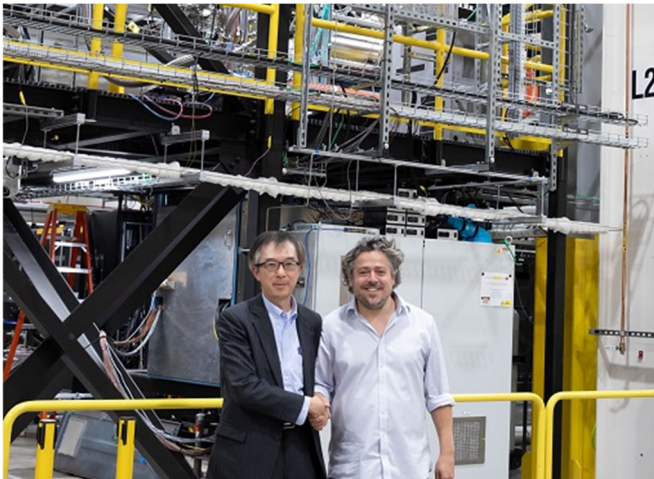
Mizuho Financial Group, Inc.
Mizuho Innovation Frontier Co., Ltd.

Investment in US firm Zap Energy

Plan to help society and corporate clients achieve carbon neutral goals through development of sustainable and clean energy

Mizuho Financial Group, Inc. (President & Group CEO: Masahiro Kihara) has bought a stake in US firm Zap Energy (President: Benj Conway), a company developing fusion power and related technology.

The investment was carried out through our specialist investment subsidiary Mizuho Innovation Frontier Co., Ltd. (President & CEO: Junichi Ikeda).



1. Investment purpose

In pursuing carbon neutrality, it is important to create new demand and markets in the decarbonization area, while also progressing in areas such as the global clean energy transition.

In fusion power generation, a colossal amount of energy is created by the fusion of light atomic nuclei to produce heavier ones. This power generation method is a potential game changer for the clean energy transition, as greenhouse gases are not emitted and it is a sustainable energy source.

Mizuho has deepened its understanding of related technology and industry trends, releasing a report entitled *Recent Trends Surrounding Fusion Energy Power Generation: The path to commercialization of fusion energy power generation* through the Mizuho Bank Industry Research Department¹ and a technical report on understanding nuclear fusion and how the fusion process inside the sun can be realized on earth through Mizuho Research & Technologies.²

Zap Energy, in which Mizuho has newly invested, utilizes a fusion power generation system called “Z pinch”, which it is making efforts to commercialize. It was established in 2017 as a spin-off from



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a research institution jointly founded by the University of Washington and Lawrence Livermore National Laboratory. The fusion reactor the company aims to produce does not employ superconducting magnets, making a small-scale and simple design theoretically viable. Therefore, if successfully commercialized, the product may be competitive from general purpose use and multiple economic perspectives.

Mizuho is engaging in challenging initiatives, including its investment in Zap Energy, and using its accumulated knowledge and experience to create new demand and markets in the decarbonization area and contribute to enhancing Japan's industrial competitiveness. This will in turn contribute to society's and corporate clients' achievement of their carbon neutral goals.

2. Comments by both companies

Zap Energy (President: Benj Conway)

As Zap Energy's first Japanese investor, Mizuho is supporting Zap Energy to advance our unique, compact technology into an important market for fusion. We are thrilled to be working with Mizuho and its clients as we push to be the first to put fusion power onto the grid.

Mizuho Financial Group (Group CSuO: Yasuhiko Ushikubo)

We are extremely pleased to have the opportunity to contribute to the development of fusion power technology through this alliance with Zap Energy. This technology holds the key to unlocking a future for supply of energy in a safe and sustainable manner. We are convinced it constitutes a major step forward in resolving global energy problems. Mizuho aims to contribute to a better future through actively supporting initiatives to realize carbon neutrality for society and corporate clients.

Zap Energy outline

Firm name	Zap Energy Inc.
Head office	United States
Representative	Benj Conway
Establishment	2017
Business area	Development of fusion power and related technology

1: Mizuho Bank Industry Research Department Innovative Technology Series report, *Recent Trends Surrounding Fusion Energy Power Generation: The path to commercialization of fusion energy power generation* (released in March 2024)

https://www.mizuhobank.co.jp/corporate/industry/sangyou/pdf/mif_244_en.pdf

2: Mizuho Research & Technologies report on understanding nuclear fusion and how the fusion process inside the sun can be realized on earth (released on March 10, 2023)

https://www.mizuho-rt.co.jp/publication/giho/pdf/mhrt002_10.pdf (Japanese language only)