





**NTT**FACILITIES



Nippon Yusen Kabushiki Kaisha NTT FACIITIES,INC. Eurus Energy Holdings Corporation MUFG Bank, Ltd. City of Yokohama

# Parties Sign MoU to Realize Offshore Floating Green Data Center Utilizing 100% Renewable Energy

**Tokyo, March 27,2025** --- Nippon Yusen Kabushiki Kaisha, NTT FACIITIES,INC., Eurus Energy Holdings Corporation, MUFG Bank, Ltd., and the city of Yokohama signed a memorandum of understanding (MoU) for a demonstration project of an offshore green data center\* utilizing a mini-float (floating berthing facility) installed as a disaster countermeasure.

On a mini-float (25m long x 80m wide) installed off Osanbashi Pier (Yokohama City, Kanagawa Prefecture), we will test an offshore floating data center powered by 100% renewable energy generated by solar power and battery energy storage systems. Based on the results, we will explore further developments in the waterfront and sea areas of Yokohama port.

\* Data center designed to reduce its environmental impact by improving energy efficiency

- 1. Overview of the demonstration project at Osanbashi Pier
- (1) Background

The rapid advancement of digital transformation (DX) across society and industries has led to an explosive increase in the demand for data centers. These require secure power and measures to combat greenhouse gas emissions, as well as large land areas to accommodate future expansion. Additionally, data centers need to be located near major consumption areas and remain operational during disasters.

(2) Project Overview

The demonstration project will involve installing a container-type data center, solar power generation equipment, and battery energy storage systems on a mini-float. The project aims to operate the data center entirely on renewable energy while assessing the equipment's salt damage resistance and operational stability in an offshore environment. The demonstration is planned to commence in autumn 2025, marking a significant step toward the practical application of a world-first "offshore floating green data center."



Location (1-1 Kaigan-dori, Naka-ku)

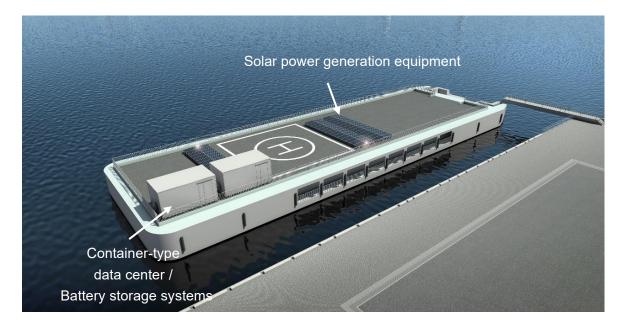




Image of Demonstration Project

# 2. Objectives of the Demonstration Project

We expect the offshore floating green data center, which operates on 100% renewable energy, will become one of the new standards for future data centers and greatly contribute to the realization of a carbon-neutral society by operating entirely on renewable energy and emitting no greenhouse gases during operation. Through the demonstration, we will work to address various challenges to achieve this vision.

# 3. Future Development of Offshore Floating Green Data Centers

Once realized, offshore floating green data centers will enable efficient utilization of offshore wind power, a promising renewable energy source. The project envisions situating these data centers near offshore wind farms to maximize the use of generated electricity without relying on or being limited by onshore power grids. Additionally, this approach is expected to address various challenges associated with onshore data center construction, such as land availability, shortages of construction contractors, and extended construction lead times.

By utilizing renewable energy, leveraging Japan's vast maritime domain, and enhancing port functions necessary for constructing and maintaining offshore facilities, the project aims to contribute to both environmental preservation and the growth of digital infrastructure.



Image of an Offshore Floating Green Data Center

#### 4 Each Organization

## (1) Nippon Yusen Kabushiki Kaisha (NYK Line)

Founded in 1885, NYK Line is a global logistics company that focuses on various forms of marine transportation, such as global logistics and bulk energy transportation, among many other related businesses. Operating one of the world's largest transportation networks, the company owns and operates a diverse fleet of car carriers, container carriers, and energy carriers. In recent years, we have actively entered new business areas, including the decarbonization business, by leveraging the knowledge and technology we have cultivated over many decades in shipping. Through innovative technology development and business creation, we will provide new value that transcends the boundaries of the shipping business and contributes to the realization of a sustainable society.

In this project, NYK Line will oversee the entire initiative and promote the development of the offshore data center business.

#### (2) NTT FACIITIES, INC.

NTT FACIITIES,INC. has over 100 years of experience in the design, construction, and maintenance of telecommunications buildings. The company specializes in the construction of large-scale data centers primarily in Japan, North America, and the Asia-Pacific region, contributing to approximately 70%<sup>\*\*</sup> of the data centers constructed and operated in Japan.

In this project, NTT FACILITIES will conduct technical verification for the design, construction, and stable operation of the offshore floating data center. Through this verification process, the company will explore the utilization of renewable energy and examine potential applications for data centers in areas with relatively high latency. This will facilitate the accumulation of engineering know-how that can be applied not only in offshore settings but also in future data center developments across various environments.

\*\* Based on the number of projects scheduled for completion between 2023 and 2025 (NTT FACIITIES,INC. research).

#### (3) Eurus Energy Holdings Corporation

Eurus Energy Holdings Corporation has been engaged in the wind power generation and solar power generation business globally for more than 30 years, and is Japan's No. 1 power generation company with a total wind and solar power capacity.

By effectively utilizing the power generated by offshore wind power, which is expected to become a major energy source in Japan, Eurus Energy aims to promote carbon-neutral data centers and contribute to a sustainable digital infrastructure.

In this project, Eurus Energy will focus on verifying the technical feasibility of operating an off-grid data center powered solely by 100% renewable energy.

## (4) MUFG Bank, Ltd.

MUFG Bank, Ltd. is a subsidiary of Mitsubishi UFJ Financial Group (MUFG), which defines its purpose as "Committed to empowering a brighter future" under the guiding principle of the "MUFG Way" MUFG is committed to addressing the challenges faced by all stakeholders, including customers, to realize a sustainable environment and society.

In this project, MUFG Bank will leverage its financial expertise and extensive network to explore co-creation opportunities for next-generation data center businesses and consider providing financial support for related ventures.

## (5) City of Yokohama

As a leading port city advancing carbon-neutral initiatives, the city of Yokohama will explore the potential for data centers utilizing renewable energy in marine areas. The city will also consider incorporating renewable energy and battery energy storage systems into onshore power supply facilities at Osanbashi Pier, supporting their use during disasters.





Carbon Neutral Port Initiatives at the Port of Yokohama

- End -