



**YANMAR**

Information

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Yanmar Holdings Co., Ltd.

## Yanmar Celebrates Decarbonization Efforts on Earth Day



Yanmar Clean Energy Site is an advanced verification facility for next-generation energy equipment aimed at achieving decarbonization.

Osaka, Japan (April 22, 2024) - This Earth Day, Yanmar Group is committed to A Sustainable Future, exemplified by its Yanmar Green Challenge 2050 initiatives towards becoming a GHG-free company that recycles resources. These include the development of the concept model e-X1 as a zero-emission agricultural machine, advancing hydrogen technology and exploring the use of alternative fuels.

Yanmar Group is pioneering maritime hydrogen fuel cell systems obtaining Approval in Principle for its Maritime Hydrogen Fuel Cell System from Nippon Kaiji Kyokai (ClassNK), a prominent Japanese maritime association. Successful tests of hydrogen fuel-cell boats and high-pressure hydrogen refueling technology are leading the way to maritime decarbonization. The group is also developing maritime hydrogen fueled engines towards decarbonization of shipping. Yanmar marine engines now support HVO fuels, contributing to CO<sub>2</sub> reduction.

At the same time, the company has established the Yanmar Clean Energy Site in Japan for demonstrations of hydrogen generation technology where Yanmar's commitment to sustainability extends to partnerships like the one with 2G, accelerating the realization of a hydrogen-based

society. The Clean Energy Site, inaugurated on September 1, 2023, within Yanmar ES's Okayama Testing Center, will serve as a verification facility for next-generation energy equipment aimed at achieving decarbonization. The company's battery partner, ELEO, has unveiled industry-leading batteries at CONEXPO to support electrification efforts.

Moreover, the group actively contributes to a sustainable resource-recycling society through bio-gas cogeneration systems, waste cooking oil utilization, and energy generation from rice husks. The YC100 bio-composter, available in Japan, plays a crucial role in processing food waste to support resource recycling initiatives.



YC100 bio-composter

Through these efforts, Yanmar empowers customers to adopt zero-emission technologies to realize their own decarbonization goals. Yanmar's diverse efforts demonstrate its commitment to decarbonization across land, sea, and urban sectors. As it addresses future challenges, Yanmar will introduce new products and technologies, advancing towards A Sustainable Future.



Yanmar's maritime fuel-cell system (left), and the concept model e-X1 compact electric agricultural machine are working to achieve zero-emissions in the marine domain and agriculture.

**About Yanmar**

With beginnings in Osaka, Japan, in 1912, Yanmar was the first ever to succeed in making a compact diesel engine of a practical size in 1933. A pioneer in diesel engine technology, Yanmar is a global innovator in a wide range of industrial equipment, from small and large engines, agricultural machinery and facilities, construction equipment, energy systems, marine, to machine tools, and components — Yanmar's global business operations span seven domains. On land, at sea, and in the city, Yanmar

provides advanced solutions to the challenges customers face, towards realizing A Sustainable Future.  
For more details, please visit the official website of Yanmar Holdings Co., Ltd.

<https://www.yanmar.com/global/about/>

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Inquiries

Corporate Communications, Yanmar

[newsroom@yanmar.com](mailto:newsroom@yanmar.com)