

What is a 'power transfer vessel'?

A Japanese firm has set out to shake up energy storage and transmission with a freshly launched "power transfer vessel" concept that is designed to carry electricity from offshore wind farms to shore. The company's first electric ship model, which will have an energy storage capacity of 200 MWh, is slated for completion in 2025.

How much energy does Japan need?

Japan, an island nation, currently depends on imported fossil fuel for 86% of its energy needs, he noted. However, the country wants to generate 36-38% of its power from renewables by 2030. This will require ramping up its offshore wind capacity from the current 20 MW to 10 GW within the next decade.

Will PowerX build a ship with a marine battery?

However, PowerX's current manufacturing priority is "obviously the marine battery like we need to build our power transfer ship, so a 3,000 kWh very large marine battery that is container friendly so you can pop them on a boat, stack them, connect them to the ship's operating system, and be very safe," Ito said.

Where can wind power be used in Japan?

One specific area he highlighted for potential application in Japan is to supplement the grids between the wind-rich but remote Hokkaido region in the north, Tohoku in the northeast, and the Tokyo area on the east-central coast, where Japan's power demand is highest.

Can a battery tanker transport excess electricity?

To enable such transport, a detailed design of the first-ever 'Battery Tanker,' christened ship X was released by the firm, aiming for completion by 2025. The firm believes that such Battery Tankers can store and transport excess electricity produced from renewable sources.

Are Taiga and Asuka electric propulsion ships?

Taiga and Asuka are series hybrid electric propulsion ships that do not use diesel engines for drive power. In addition, they adopted a full-scale DC grid system, which is different from the AC grid or AC synchronous generator system for conventional electric propulsion ships.

JERA Nex is a new renewable energy developer launched by JERA, Japan's largest power generation company. Headquartered in London, and with a global remit, JERA Nex has a portfolio of renewable assets that includes ...

overview. Battery Energy Storage Solutions: our expertise in power conversion, power management and power quality are your key to a successful project Whether you are investing in Bulk Energy (i.e. Power Balancing, Peak ...

Trina has been present in the Japanese market as a solar PV solutions provider for more than 13 years, targeting residential, commercial and utility-scale markets. Energy-Storage.news" publisher Solar Media will host the ...

The Upcoming Rise of Grid-Scale Batteries in Japan February 16, 2022| Energy Storage. Japan's government recently hinted that it would seek to address the Achilles' heel of renewable energy from intermittent sources, such ...

ABB's Containerized Energy Storage System is a complete, self-contained battery solution for a large-scale marine energy storage. The batteries and converters, transformer, controls, cooling and auxiliary equipment are pre ...

Japanese technology company PowerX has unveiled the detailed design of a new cargo ship equipped for storing and transporting surplus electricity generated from renewable ...

Development has begun in Japan of a marine battery storage vessel that would be charged at sea from offshore wind and then carry the power back to land. Startup PowerX has come up with the concept of the Power ...

Japanese shipping majors NYK and Mitsui O.S.K. Lines (MOL) have been commissioned to study liquefied CO2 transport by vessels as part of a carbon dioxide capture ...

A full interview with Mahdi Behrangrad, head of energy storage at Pacifico Energy will be published on this site for Energy-Storage.news Premium subscribers in the coming days. Energy-Storage.news" publisher Solar Media ...

EMS is tasked with the management, allocation, and regulation of power on multi-energy ships, as well as the specific equipment control to achieve optimal power allocation for ...

The main types of ship energy system configuration that include the use of batteries are presented in subsection 5.2.3 while the main alternatives available for system control are ...

A new partnership between Eco Marine Power (EMP) and the Japanese ship owner Hisafuku Kisen K.K. of Onomichi will test the world's first integrated rigid sail and solar power system for ships. Eco Marine Power is a ...

The approval for a versatile small-sized ship designed for use in the domestic sea was issued by Japanese classification society ClassNK on February 3, 2025. The approval ...

Itochu, another Japanese shipping firm, is joined in that project by Dutch storage tank and fuel terminal operator Vopak, which is studying the feasibility of land-based ammonia bunkering infrastructure. Ammonia-fueled ...

Japanese power transfer vessel developer PowerX has unveiled the detailed design of the first-ever "battery tanker" set for domestic and international field testing in 2026.

Observing the growing demand for LCO<sub>2</sub> carriers in various carbon capture and storage (CCS) projects that transport CO<sub>2</sub> collected in Japan to storage sites by sea, the ...

Japanese shipping company Asahi Tanker has launched and named the first of its two next-generation all-electric tankers ordered in 2020. Asahi Tanker. The ceremony took place at Koa Sangyo shipyard in Marugame ...

Japan's shipping giant Mitsui O.S.K. Lines (MOL) has won a long-term time charter contract for a floating storage and regasification unit (FSRU), which will be built by South ...

A 100TEU trimaran specially designed for transferring renewable energy in Japan's coastal waters, PowerX expects to be able to complete the first ship in 2025, which will be able to carry 100 ...

A Japanese firm has set out to shake up energy storage and transmission with a freshly launched "power transfer vessel" concept that is designed to carry ... The ship, notably, is designed for ...

An energy storage system (ESS) is deployed to improve quality of the power and system stability of the microgrid. ... In the 1980s, a new breakthrough in modern WASP ...

The highly publicized battery-powered vessel was designed by e5 Lab Inc., a consortium of leading Japanese shipping and maritime services companies, including Asahi Tanker Co., Ltd., set up to build infrastructure ...

Energy storage system is connected and running but not charging or discharging energy into the system. On loss of generating capacity it steps in to take the load for a predefined period of time. If other functions are activated simultaneously, ...

Corvus Energy offers a full portfolio of ESS suitable for almost every vessel type, providing high power energy storage in the form of modular lithium-ion battery systems. The purpose-built, field-proven battery systems ...

Japanese shipping major Nippon Yusen Kabushiki Kaisha (NYK) and compatriot energy titan ENEOS have signed an agreement for the sale and purchase of marine fuel with carbon dioxide (CO<sub>2</sub>) removal credits (CDR ...

Image: Pacifico Energy. In June, Japanese renewable energy developer Pacifico Energy put in action the first trades from battery energy storage system (BESS) assets in the country's power markets. The two ...

Adaptive model predictive control with propulsion load estimation and prediction for all-electric ship energy . In this propulsion system, electric power is generated by prime mover and ...

IHI Power Systems Co., Ltd. has succeeded in significantly reducing carbon dioxide (CO<sub>2</sub>) emissions compared with conventional ships by adopting the DC (direct current) voltage grid system for the series hybrid. The series hybrid ...

Over a gigawatt of bids from battery storage project developers have been successful in the first-ever competitive auctions for low-carbon energy capacity held in Japan. ...

Japanese battery startup Power X unveils the design of a large electric ship to be completed by 2025. Vessel "X" will be the first in a line of "Battery Tankers" and is scheduled for field tests in 2026.

Japanese-based clean energy startup PowerX is offering a maritime solution to transport clean energy from places abundant in renewable resources to places deficient in green energy sources....

The project is intended to help Japan achieve its target to increase wind farm-sourced energy from the current 20 GW to 10 GW by 2030, and 45 GW by 2040.

Web: <https://www.eastcoastpower.co.za>

