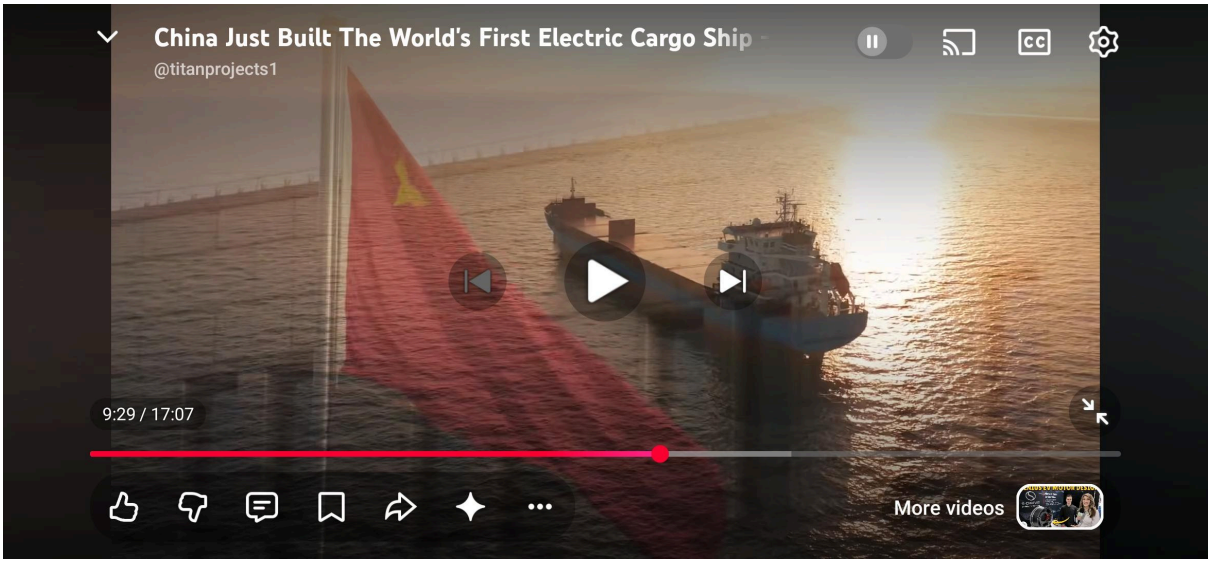
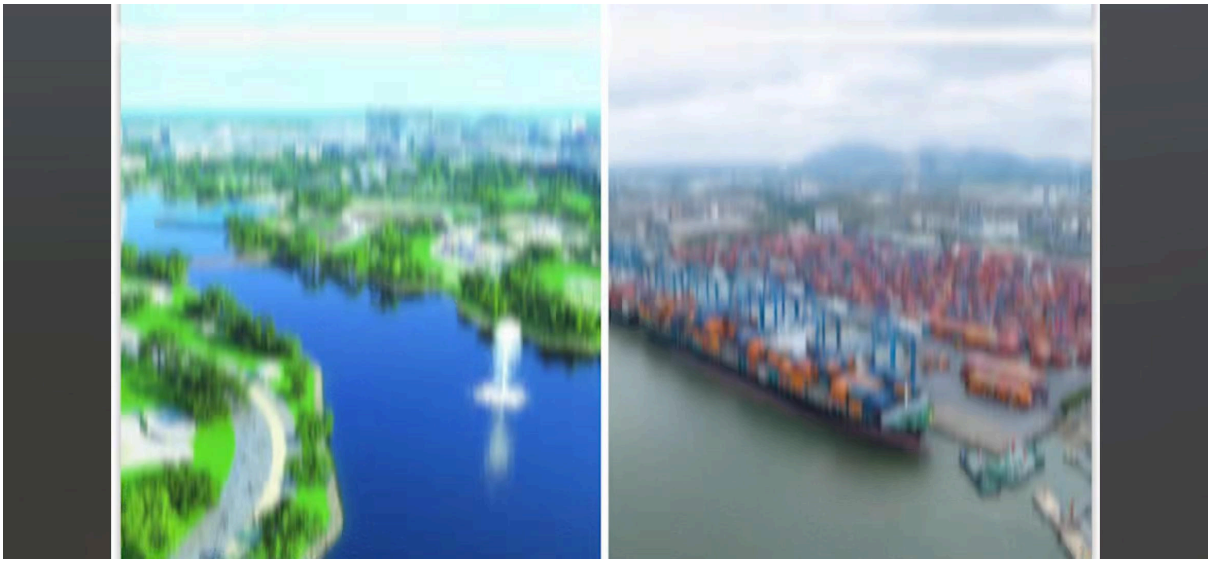
A new 70-meter Chinese cargo ship just sailed 760 kilometers on pure hydrogen, using 30 percent less in fuel costs 30% than a conventional diesel ship at ~ $10 per mile vs $15/ mile for diesel.
https://youtu.be/PHpgtHIPJ1g?si=3niUB9MH3GdgEbbv
Global shipping runs on bunker C
300 M tons of bunker C burned per year
Half of all global emissions of SSO2is from the ocean shipping industry. Red Sun completes this renewable shipping cartel and drive by multiplying range for plausible transpacific and long haul shipping, while retrofitting all the ships & making battery leasing a reality now for third parties with Lloyds Syndicate insurance



Battery ship can go 70 km per charge

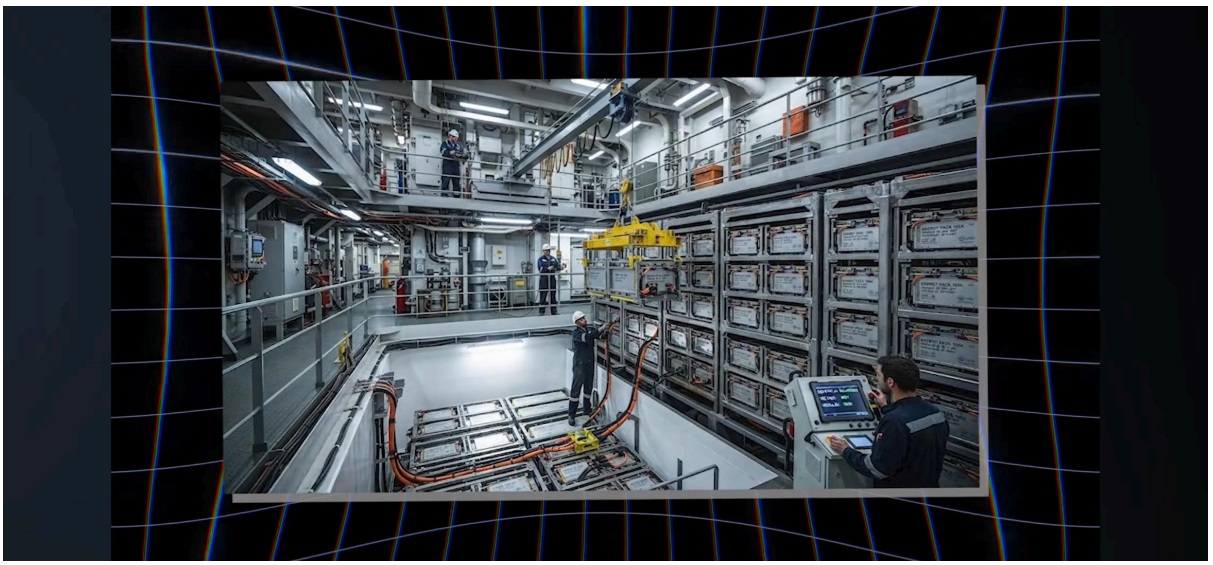
The hydrogen ship can go 760 miles, which 4 x 32 MW Red Sun batteries can triple radius to 2400 miles, with a weight of 104 tons.



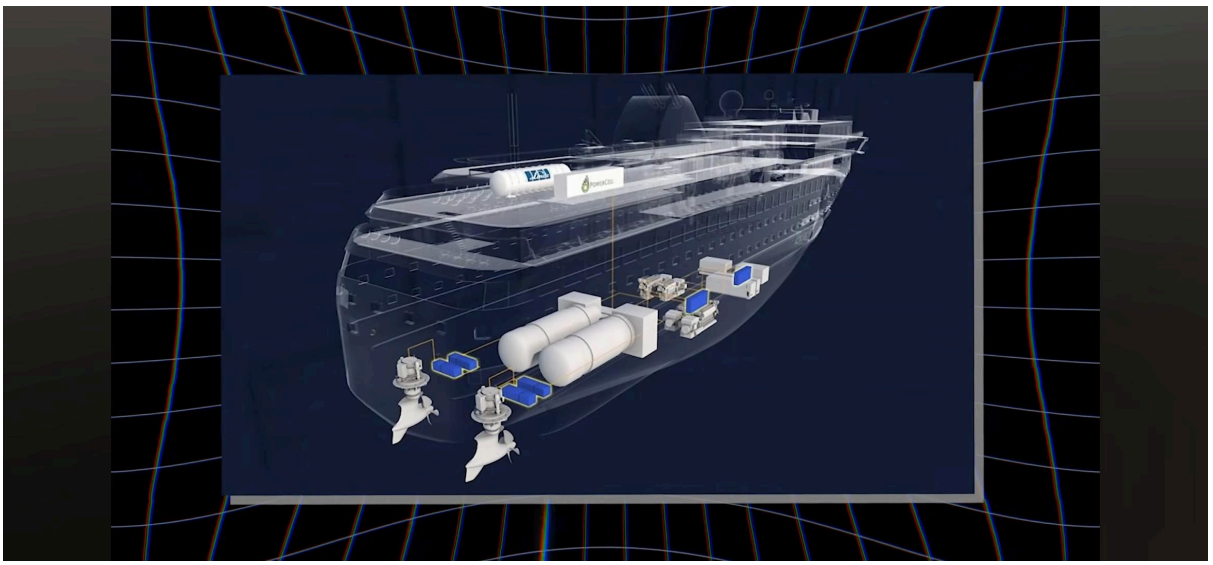
Hydrogen ship of 2000 t uses 1 kg of hydrogen per mile. It carries 70 shipping containers and is 30% cheaper than diesel

Meanwhile, an even bigger revolution is happening on its rivers with a 20-minute battery swap system that makes electric shipping cheaper than diesel.

Charging an electric shipping takes hours vs. Diesel fuel loading takes only 45 minutes thus, battery swaps and battery leasing os the model. Ship owner pays only for charge batteries on lease and has no capital outlay for equipment; Takes 20 minutes:



We break down how China built a complete, vertically-integrated ecosystem for clean shipping while the world was stuck on bunker fuel. By creating standardized swappable batteries and domestically-owned hydrogen technology, China has created a closed system that could lock out global competitors.



With total vertical integration from ship builders, ports, shipyards, dry docks, battery companies, component makers, hydrogen stations, etc., with the goal of providing a turnkey shipping system that can use tech as a major advantage in cost, pollution and removes fuel and bunker C dependence. This is is a technology lockout, as only ch8na has build all the above with working full scale ships

🟢 The Bunker Fuel Trap: How the entire global shipping industry became dependent on a single, catastrophically dirty fuel source.
🟢 The 20-Minute Battery Swap: The standardized, crane-swapped battery containers that eliminate charging downtime and make electric shipping profitable.
🟢 The 760km Hydrogen Ship: How the hydrogen-powered Yuntao Number One ship, launched July 2026, shatters the range limits of battery-electric vessels.
🟢 The CMA CGM Deal: Why a legacy European shipping giant bought its first pure-electric cargo ship from China’s Shandong New Energy Shipbuilding.
🟢 The Walled Garden: How owning the ships, batteries, fuel cells, and port infrastructure gives China a permanent advantage in its own supply chain.

China's first **500kW** **hydrogen** **fuel** **powered** ship

China's first service ship powered by a 500-kilowatt hydrogen fuel cell, Three Gorges hydrogen ship No.1. /China Three Gorges Corporation

China's first service ship powered by a 500-kilowatt hydrogen fuel cell has been put into operation in Zhongshan, Guangdong Province, according to China Three Gorges Corporation on Monday.

The service ship, Three Gorges hydrogen ship No.1, uses homegrown hydrogen fuel cells and a lithium battery system and will be used for transportation, patrol and emergency in the Three Gorges reservoir area.

The ship marks a significant breakthrough for China's new energy shipbuilding, heralding the exploration into applying hydrogen technology to inland vessels.

The vessel's maximum speed reaches 28 kilometers per hour, and it has a maximum cruise range of 200 kilometers. It also makes less noise and is more cost-efficient compared with traditional oil-fueled ships.

The ship has been certified by the China Classification Society, according to Wang Zhen, director of the system integration office at China State Shipbuilding Corporation.

"The ship is the largest among global official ships in terms of power generation or energy storage," said Wang.

The China State Shipbuilding Corporation and China Yangtze Power Corporation built the ship under the China Three Gorges Corporation (CTG). The construction of the vessel began on May 17, 2022.

Green shipping

China has been witnessing rapid growth in modified and newly built hydrogen-powered ships. The domestic hydrogen fuel cell market is predicted to reach over 10 billion yuan (about $1.45 billion).

The country has rolled out a slew of policies and guidance to accelerate the development of the ship industry fueled by renewable energy, a part of the green effort in achieving China's goal of achieving carbon peaking in 2030 and carbon neutrality in 2050.

Last year, Chinese ship developers doubled down in smart and green technologies and provided new solutions for the global market.

Nantong Cosco Khi Ship Engineering Co., Ltd has self-developed and manufactured the world's largest container ship with a cargo capacity of 24,188 twenty-foot equivalent units (TEUs), as about 10 orders are waiting, according to Xinhua.

The company developed dual-fuel methanol-powered container ships, which attracted market attention once it was launched, enhancing China's shipbuilding capability in terms of mid-to-high-end ship types.

Last March, the world's largest electric cruise ship, Yangtze River Three Gorges No.1, made its maiden voyage and was put into commercial use last April.

For a **70-meter, 2,000-ton cargo vessel** or small coastal feeder ship cruising at an economical speed of 10 to 12 knots, the estimated diesel fuel cost is **$12.00 to $20.00 per nautical mile**.

At this size, the vessel will typically burn roughly **5 to 7 metric tons of marine diesel per day**, which equates to roughly **6 to 8 gallons of fuel consumed per mile** traveled.

The exact costs break down based on the following metrics:

⚙️ Fuel & Cost Breakdown

Metric	Estimated Value	Notes
Engine Output	**~1,200 – 1,500 kW** (1,600 – 2,000 hp)	Standard sizing for a 70m utility/cargo vessel.
Fuel Burn Rate	**~250 – 300 liters per hour**	At standard transit/cruising speed.
Mileage	**~6.5 – 8 gallons per nautical mile**	Equivalent to ~25 to 30 liters per mile.
Wholesale Marine Diesel (MGO)	**~$12.00 – $16.00 per mile**	Assumes bulk wholesale Marine Gas Oil at ~$650–$750 per metric ton.

Retail Marina Diesel	**~$24.00 – $32.00 per mile**	Assumes retail pump pricing (~$3.50–$4.00/gal) if fueling at a commercial marina.

🌊 Major Factors Impacting Your Actual Cost

- **Cruising Speed:** Marine fuel consumption behaves exponentially rather than linearly. Pushing the ship from 10 knots to 14 knots can easily **double** the daily fuel burn and subsequent cost per mile. [1, 2]
- **Hull Type & Load:** A broad-beamed 2,000-ton cargo freighter moving at 10 knots will burn fuel differently than a sleek 70m luxury superyacht traveling at 18 knots (which can burn up to 130+ gallons per hour). [1]
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