

### **SolarInnovate Energy Solutions**

### **Nuclear battery container**





#### **Overview**

Will China build a nuclear-powered container ship?

The KUN-24AP, would be powerd by a thorium-based Generation IV molten salt reactor. Courtesy Jiangnan Shipyard. China has unveiled plans for a nuclear-powered container ship expected to be the largest ever built, powered by a thorium reactor and boasting a load capacity of 24,000 standard containers.

How safe is a nuclear container ship?

CSSC said in a social media post: "This type of ship has high safety because the reactor operates at high temperatures and low pressure, meaning it can avoid in principle core melting. "The ultra-large nuclear container ship is designed to truly achieve 'zero emissions' during the ship's operating cycle," CSSC said.

Could a nuclear-powered container ship reduce cargo ship emissions?

In August 2024, Lloyd's Register, CORE POWER, and Maersk launched a study regarding regulatory feasibility and frameworks for a nuclear-powered container ship using a fourth-generation reactor to cut cargo ship emissions amid rising clean energy demand.

Will nuclear energy companies shrink reactors to the size of shipping containers?

Nuclear energy companies are trying to shrink reactors to the size of shipping containers in a bid to compete with electric batteries as a source of zero-carbon energy.

Can nuclear technology power commercial ships?

The facility will test and refine the ship's nuclear technologies, ensuring compliance with global safety and regulatory standards. For many years, only the most powerful naval ships were allowed to use nuclear power. The



question of whether nuclear technology can power commercial ships is now crucial for the maritime sector.

Are batteries a nonstarter?

Batteries are an obvious nonstarter, Emblemsvåg adds. A large container ship needs about 3,000 megawatt-hours a day, which is roughly the capacity of the biggest grid battery ever built. "The battery solution is dead before it starts," he declares. "The ship will basically go for one day, and it's over."



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## The colossal KUN 24-AP is the world's first nuclear-powered container

Jun 20, 2025 · China launches the KUN 24-AP, a nuclear-powered vessel that promises to reduce emissions and transform global shipping. Learn how this logistics innovation from China puts

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# Recent progress and perspective on batteries made from nuclear ...

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