



Fleetzero has a vision for cleaning up shipping with smaller electric-powered ships | Photo source [Fleetzero](#)

Innovation > Mobility & Transport > Shipping company aims to reduce emissions with smaller electric ships

## SHIPPING COMPANY AIMS TO REDUCE EMISSIONS WITH SMALLER ELECTRIC SHIPS

 MOBILITY & TRANSPORT

### A maritime shipping startup is developing smaller, electric-powered ships that use a battery-swapping system to improve efficiency

**Spotted:** Maritime shipping accounts for around 2.5 per cent of global CO2 emissions. However, this is considered by many to be a gross underestimate of the environmental damage done by container shipping. One study found that, in 2009, a single large container ship emitted almost the same amount of cancer and asthma-causing chemicals as 50 million cars. One company, Fleetzero, hopes it has the answer.

Founded by a team of U.S. Merchant Marine Academy graduates, Fleetzero is hoping to develop an entire fleet of long-range electric cargo ships. Its plan is to use a fleet of smaller ships that run on a lithium iron phosphate battery pack stored on deck in a 20-foot by five-foot shipping container. Each battery pack delivers 2 megawatt-hours of energy. When the ship comes into port, the battery pack is swapped out for a fresh one, using the same cranes that unload the cargo.

The system allows the ships to carry fewer batteries per ship, reducing costs and also creating more space for cargo. The startup says that the ships' electrified drive system is also simpler than a conventional combustion engine, saving money on maintenance and repairs. Without the extra batteries and the need for a fuel and ballast water, the small ships can carry a competitive amount of cargo.

The company emphasises that its plan is not only faster to get off the ground, but reduces the time to profit of a conventional container ship, [saying](#), "Building a fleet of smaller, inexpensive vessels allows for rapid iteration and the ability to incorporate new technology—like cheaper batteries and more efficient hulls—as soon as it becomes available. While a traditional containership carrying can

cost upwards of \$300 million and take years to generate revenue, a smaller fleet can profit faster and be more resilient through market cycles.”

This is not the first plan for an electric cargo ship that we have seen here at Springwise, and the potential for this technology is exciting. Other projects hoping to reduce the pollution generated by these ocean-going behemoths include a [battery-swapping](#) container ship for covering short distances and a [wooden cargo ship](#) that uses solar power and sails.

Written By: Lisa Magloff

4th April 2022

Email: [corporate@fleetzero.com](mailto:corporate@fleetzero.com)

Website: [fleetzero.com](http://fleetzero.com)

### **Takeaway:**

Fleetzero is currently seeking approval for its battery pack. They hope to begin shipping long-range cargo by mid-2023. According to the company, another advantage of their smaller vessels is that they will be able to access ports that are too small for larger container ships – and which might be cheaper to use. If successful, this could be a sea change in the way that maritime shipping is conducted – using fleets of small, electric-powered ships instead of enormous, pollution-spewing vessels.