

Spear and ABB Marine & Ports Collaborate with Vigor on Electrifying Washington State Ferries' Fleet

The boldest ferry electrification effort in the U.S. will use American-made lithium ion batteries from Spear Power Systems, Inc on new Hybrid Electric ferries.

Washington State Ferries is pursuing a groundbreaking initiative that will electrify a total of 16 new vessels and convert 3 existing vessels to plug-in hybrid electric propulsion by 2040. The 20-year process, which is subject to legislative funding, will begin with five newbuilds belonging to WSF's 'Hybrid Electric Olympic Class,' capable of carrying 1,500 passengers and 144 cars. Renowned shipbuilder Vigor Fab LLC will begin delivering the vessels in 2024.

Spear's Trident® batteries were selected as the preferred technical solution to meet this innovative application. The batteries will provide energy storage for the Hybrid Electric Olympic Class vessels, allowing the ferries to operate completely on battery power, on diesel gensets, or on a combination of sources. The installed battery capacity on each vessel will be the largest marine systems fielded in the U.S. and among the largest in the world, at approximately 10 megawatt hours each.

"The Hybrid Electric Olympic Class vessels are being built with incredible attention to detail," commented Spear's President and CEO Jeff Kostos. "It's only natural that they would want the safest, lightest system on the market. Spear's collaboration with ABB Marine & Ports, built over several projects, gives us absolute confidence that the Puget Sound area will have the most advanced, reliable systems possible on the water in 2024."

Washington's landmark electrification effort supports the State's goal to reduce emissions by 57.5 percent below 2019 levels by 2050.

"Vigor is delighted to partner with ABB Marine & Ports who will be providing the hybrid-electric propulsion for the new ferries, and Spear, whose batteries ABB Marine & Ports will integrate into the solution, in this remarkable work," said Jay Herbert, Vice President – Marine Fabrication, Vigor. "The State is committed to replacing aging ferries with clean technology and this hybrid and electric propulsion solution is a perfect complement to that effort because it is space efficient, easy to install and flexible in operation."

"We are delighted to collaborate with Spear on this truly iconic project that is, without a doubt, setting the course for a wider adoption of zero-emission solutions in shipping," said Edward Schwarz, Vice President of Sales & Execution of New Builds, ABB Marine & Ports Americas.

About Spear Power Systems

Founded in 2014 by experienced energy storage entrepreneurs Jeff Kostos, President & CEO, and Dr. Joon Kim, CTO, Spear designs and manufactures safe, high performance energy storage systems (ESS) for clients with some of the world's most demanding industrial and defense

applications. Spear takes a cell agnostic approach towards integrating its in-house designed, scalable electronics, software, and mechanical systems with the most application-appropriate chemistry in order to maximize the value for its clients. For more information, visit spearpowersystems.com.