



Demonstrating **ELECTRIC BOATS** on the working coast

Island Institute is partnering with **PENDLETON YACHT YARD (PYY)**, **MAINE ELECTRIC BOAT**, and **FLUX MARINE** to bring an electric powered workboat to Islesboro. This boat will demonstrate the capabilities of the technology in a commercial setting while collecting valuable data and insights. As it is used for daily tasks by PYY staff, an installed device will collect data on location, speed, and battery usage. This data will inform improvements in design and help Island Institute support the effort to convert commercial workboats away from traditional diesel engines to electric motors.

Along with data collection, this partnership will include “sea-trials” with potential commercial users of electric outboards—seeing is believing!



WHY ELECTRIC OUTBOARDS?

Internal combustion engines are very inefficient, requiring thousands of tiny explosions to move a hull through the water. This inefficiency increases costs and creates pollution that compromises human health and the marine environment. While an internal combustion engine works at only 30-40%, most electric motors work at 85-95% efficiency.

For example, it is estimated that running a 70hp, four-stroke, gas/diesel boat at full throttle for one hour burns seven gallons of fuel and puts 8.9 kilograms of carbon dioxide into the atmosphere for every gallon burned. Therefore, after 100 hours, this 70hp motor would have put more than 6,000 kilograms—more than 2 ½ tons—of CO₂ into the atmosphere. That is more than 10 times the emissions from an electric boat, even when charged from non-renewable energy sources.

Additionally, marine fuel is expensive. Electric-powered boats will allow marine businesses to be less reliant on fossil fuels, making them less subject to market volatility, and thus more resilient against economic changes. Electric boats also reduce noise and local pollution and move us closer to Maine’s climate goals.

ISLAND INSTITUTE IS TAKING A SYSTEMS LEVEL APPROACH.

Island Institute is dedicated to creating a stronger, climate-friendly marine economy and is working to transition the working coast away from fossil fuels. We are connecting marine businesses with leading technology and assessing effective charging infrastructure. In addition, we are developing a workforce curriculum that will support the sale, installation, and maintenance of these motors.

Island Institute is leveraging its expertise and relationships to bring an electric future to Maine today.

FOR MORE INFORMATION, PLEASE CONTACT:

LIA MORRIS - lmorris@islandinstitute.org
PHOEBE WALSH - pwalsh@islandinstitute.org
SAM BELKNAP - sbelknap@islandinstitute.org
SAM FELDMAN - sfeldman@islandinstitute.org