



THE LOOKOUT

Your quarterly VMCC update



Founder's Message

Hello Colleagues and Industry Friends,

I hope you have all enjoyed a delightful summer with family and friends.

As we reflect on the extreme weather events over the past few months, we cannot ignore the challenging realities of climate change. This summer, B.C. had its worst wildfire season on record. Our neighbours in Alberta also suffered from an unprecedented season and across the country, Nova Scotia was hit with devastating fires, record rainfalls and flash floods.

Despite these events, we remain steadfast in our commitment to decarbonization across the maritime industry through Operation Flagship and our Work Group Program.

Even amidst the hustle and bustle of our personal lives, we have continued to prioritize our collective responsibility to collaborate, innovate and drive change.

Thank you for your unwavering commitment and dedication to a better future!

Elisabeth Charmley
Executive Director, VMCC



OVERVIEW:

- Founders Message
- Safe Passage: BC Green Shipping Corridors Assessment receives \$180,000
- Registration Now Open for Greenship 2023!
- Tug of the Year Completes Maiden Voyage
- Seaspan & Hapag-Lloyd to Retrofit 60 Ships with Green Methanol
- Funding Corner: Scale your Research

SAVE THE DATE

- Thursday, November 2
Greenship 2023 - North America's only conference focused on maritime shipping & transportation decarbonization

VMCC announced as Partner in Safe Passage: BC Green Shipping Corridors Assessment

We are thrilled to announce that the Vancouver Maritime Centre for Climate Change (VMCC) is the Vancouver partner in the groundbreaking Safe Passage: BC Green Shipping Corridors Assessment project.

Led by a team at the University of Victoria, this research initiative aims to address a critical question: How do we transform one of the world's largest industries into a leader in zero-carbon technologies?

The project has received significant funding through the Pacific Institute for Climate Solutions (PICS), courtesy of the British Columbia Ministry of Energy, Mines, and Low Carbon Innovation, as part of its Zero-Emissions Vehicles Project. Over the course of three years, the project will be supported with a \$180,000 grant.

This funding is part of a larger grant totaling \$900,000 from PICS's Opportunity Projects Program (OPP).

The OPP provides research funding for high-impact climate mitigation or adaptation solutions from leading institutions such as the University of Victoria, the University of British Columbia, and the University of Northern British Columbia. These projects enable academic researchers to collaborate closely with non-academic partners, eager to translate their research findings into actionable solutions.

The Safe Passage project holds immense promise for advancing the green-corridor concept within British Columbia's maritime industry. By comprehensively understanding zero- and low-carbon energy sources, coupled with a keen understanding of market demand, this research has the potential to accelerate maritime decarbonization in our province.

The positive impact of such decarbonization cannot be understated; it will not only improve air quality but also bolster trade and foster increased investment in BC.

We are excited to be a part of this transformative journey and look forward to the promising outcomes that lie ahead.

Together, as we forge ahead with Safe Passage, we are determined to make a lasting impact on the future of shipping and contribute significantly to a more environmentally conscious and responsible maritime industry in British Columbia.

LEARN MORE



Read the Announcement:
<https://tinyurl.com/mwhkyvpr>



By understanding market demand and exploring zero- and low-carbon energy sources, this research will position British Columbia as a global leader in discussing the future of environmentally sustainable shipping.

Josie Osborne

Minister of Energy, Mines and Low Carbon Innovation



SAVE THE DATE THURSDAY NOVEMBER 2



North America's only conference focused on maritime shipping and transportation decarbonization.

Join us at the **JW Parq Marriott Hotel** in Vancouver on **November 2**.

250+
ATTENDEES

30+
SPEAKERS

\$700
CONFERENCE PASS

Themes & What to Expect

Timely and brief, high-value sessions, with industry-leading speakers who challenge traditional knowledge and institutionalized practices. Networking opportunities with a diverse cross-section of industry stakeholders, from ship owners to terminal operators, technology suppliers, regulators and academia.

Market Update

Technology & Design

Policy & Regulation

Alternative Fuels

Green Shipping Corridors

Green Finance



Register Now at VMCClimate.ca/greenship2023

HaiSea Wamis Completes Maiden Voyage

Story adapted from Robert Allan Ltd.

Riviera Maritime's International Tug & Salvage has recently named HaiSea Wamis as the prestigious Tug of the Year for 2023, a remarkable achievement for the vessel and its pioneering technology. Delivered by Türkiye's Sanmar Shipyards, HaiSea Wamis is the first of three ElectRA 2800 battery electric tugs designed by Robert Allan Ltd. for Canada's HaiSea Marine.

On its delivery voyage and arrival in Canada, HaiSea Wamis made history by crossing the Atlantic Ocean under its own power and becoming the first battery electric tug to traverse the Panama Canal. The tug then continued its journey along the Pacific coast of North America until it reached its current station in Vancouver. From there, it will commence operations before heading to its permanent home base in Kitimat, to serve the LNG Canada export facility.



Once operational in Kitimat, HaiSea Wamis' substantial battery capacity (5,288 kWh) will enable a reduction of approximately 1700 tonnes of CO2 emissions per year compared to conventional diesel equivalent tugboats. Together with its sister vessels, HaiSea Wee'git and HaiSea Brave, the fleet of battery electric tugs is expected to save over 5,000 tonnes of CO2 emissions annually—equivalent to the emissions of about 1000 cars.

The Tug of the Year award recognized HaiSea Wamis not only for its emission reduction capabilities but also for its groundbreaking environmental performance and design.

It has been bestowed with the American Bureau of Shipping's (ABS) ENVIRO+ notation, a testament to its exceptional environmental standards.

The tug will also undergo sea trials in B.C. waters to confirm its ultra-low underwater noise signature and obtain ABS' UWN notation, another noteworthy achievement.

HaiSea Wamis, the Tug of the Year for 2023, sets a new standard in battery electric tug design and construction, serving as an inspiring example for the decarbonization of harbour towage operations worldwide.

Performance & Design



Battery capacity (installed):
5288 kWh



Battery capacity (maximum):
6102 kWh



Bollard pull (ahead):
68 tonnes



Bollard pull (astern):
65 tonnes



Length, overall:
28.40 metres



Speed:
12 knots

MAN to Retrofit up to 60 Seaspan and Hapag-Lloyd Ships to Green Methanol

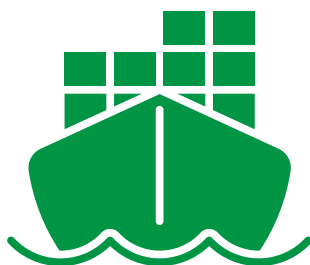
Article written by Bojan Lepic
Originally Published on Splash 247
July 2023

MAN Energy Solutions has signed a conversion commitment agreement with containership owner Seaspan and containerline Hapag-Lloyd.

Under the terms of the agreement, MAN PrimeServ, MAN Energy Solutions' after-sales division, will deliver 15 engine retrofit solutions for the conversion of vessels powered by individual MAN B&W S90-type fuel-oil-powered engines from the Seaspan and Hapag-Lloyd fleets to dual-fuel ME-LGIM engines capable of running on green methanol.

This agreement includes 45 optional engine retrofit solutions. According to MAN, each conversion can provide a CO2 reduction of 50,000-70,000 tonnes each year when operating on green methanol.

MAN Energy Solutions developed the ME-LGIM dual-fuel engine for operation on methanol, as well as conventional fuel. When operating on green methanol, the engine offers carbon-neutral propulsion for large merchant-marine vessels. Currently, more than 100 ME-LGIM engines are on order or in service.



Seaspan is primarily focused on long-term charters with the world's leading container shipping lines. It has a newbuild program of 70 vessels which will bring Seaspan's fleet to a total of 200 vessels and 1.9M TEU capacity.

FROM THE NEWS

Global Headlines on
Maritime Decarbonization



On the other hand, Hapag-Lloyd has a fleet of 250 container ships and a total transport capacity of 1.8M TEU. The company aims to achieve net zero by 2045.

Another shipping giant, Maersk, recently announced that it would be retrofitting one of its ships to methanol dual-fuel using MAN technology. The first engine conversion is set to take place in the middle of 2024.

LEARN MORE



tinyurl.com/4s9z2twh

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This agreement shows clear intent to drive the industry transition toward zero-carbon shipping. Retrofitting existing engines to dual-fuel running is one of the most effective ways to reduce greenhouse gas emissions and to derive greater efficiency and profitability from an existing shipping fleet, while simultaneously delivering fuel flexibility and extending operational lifetimes,”

Thomas Leander

Head of solutions and site manager at MAN PrimeServ, Frederikshavn

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SCALE YOUR PROJECTS

FUNDING CORNER

A new feature of the VMCC Lookout, the Funding Corner will provide an overview of opportunities, including key dates and criteria.

Transport Canada Requests Proposals for Marine Biofuels Demonstration

Projects must:

- Advance and demonstrate the technological and/or commercial readiness of biofuels for Canada's domestic vessels;
- Characterize biofuel performance and benefits;
- Identify regulatory and technical barriers to the adoption of biofuels for Canada's domestic fleet; and
- Advance publicly available science, research, and knowledge about biofuels in Canada.

LEARN MORE



tinyurl.com/4s9z2twh



Deadline: October 31, 2023



Environmental Protection Review Canada (EPRC)



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LET'S DO MORE -

LET'S DO BETTER -

TOGETHER.