

Online Workshop on Greening Canada's Marine Transportation Consideration of Alternative Marine Fuels

April 20 and 21, 2022

Zoom Meeting 12:30 pm – 17:30 pm Newfoundland Time (NDT) Zone

Objectives of the workshop:

- 1. CISMaRT updates
- 2. To develop programs / plans for greening Canada's marine transportation sector with a focus on alternative fuels
- 3. Outline the worldwide need for alternative fuels, and trends in transitioning from conventional to green fuels in the international marine industry
- 4. Identify issues and approaches among operators and stakeholders in Canada
- 5. Propose a research program to facilitate the transition in Canada
- 6. Develop themes for future workshops or propose next steps on alternative fuels in Canada

April 20, 2022 (Day 1)

12:30 - 12:50	Opening Remarks and CISMaRT Updates (Wei Qiu, Chair, Interim Board of CISMaRT)	Workshop facilitator: Dr. Bruce Colbourne
12:50 - 14:50	Overview of Alternative Fuels for the Marine Industry - Short Course Jan Hagen Andersen, DNV	 Technologies for GHG reduction "Well to wake" considerations Alternative fuels Summary of emissions by shipping in Canadian waters
14:50 - 15:00	Break	
15:00 - 15:35	Green Transportation in Canadian Waters David Bolduc, Green Marine	
15:35 - 16:10	Challenges Faced by Domestic Bulk Carriers in Decarbonization and Towards Green Operations Yousef El Bagoury, CSL	Challenges faced by short-sea operators in transitioning to green operations
16:10 - 16:45	A Canadian Ferry Operator's Perspective Tony Vollmers and Greg Peterson, BC Ferries	Challenges faced by ferry operators in transitioning to green operations
16:45 - 17:15	Q&A Session, Discussion	How is Canada likely to effect the transition?

<u>April 21, 2022 (Day 2)</u>			
12:30 - 12:35	Opening Remarks	Brief summary from Day 1Overview for Day 2	
12:35 - 13:10	Challenges for Ship Designers in Using New Fuels Andrew Kendrick, VARD/SNAME	New vesselsConversionsStorageFueling	
13:10 - 13:45	A Port Operator's Perspective Gary Olszewski, Vancouver Fraser Port Authority	BunkeringSafetySuppliesInfrastructure	
13:45 - 14:45	Research Needs for Transitioning to Green Fuels in Canada Panel Discussions Moderator: Andrew Kendrick (SNAME) Panelists: Andy Stone, (Ocean Supercluster) Erik Johnston (Robert Allan Ltd.) Mandar Avsare (Transport Canada) Paul Topping (Chamber of Marine Commerce) Zuomin Dong (University of Victoria)	 To develop projects / plans for introducing alternative fuels in Canada's marine transportation sector To develop a roadmap for use of low-carbon fuels in Canada's marine sector 	
14:45 - 14:55	Break		
14:55 - 15:40	General Session 1	What fuels have the most promise?	
15:40 - 16:25	General Session 2	What technologies should Canada focus on?	
16:25 - 16:30	 Closing remarks Future workshops and/or steps on the subject of alternative marine fuels 		