

The Changing Landscape of Bunkers in Vancouver



Current Market

- Vancouver bunker demand continues to be centered on:
 - Low Sulphur Fuel Oil (VLSFO)
 - High Sulphur Fuel Oil (HFO)
 - Low Sulphur Gas Oil (LSMGO).
- LNG will be the first alternative fuel option in Vancouver.
- Bio-Diesel and Methanol remain in the development phase.

Fuel Grades

- HFO requires maximum sulphur content of 3.5%.
 - Vessels must be equipped with scrubbers.
- VLSFO requires maximum sulphur content of 0.5%.
- LSMGO requires a maximum sulphur content of 0.1%.
- Vessels must burn LSMGO within the ECA.
 - 200 nautical miles from the coast.

VLSFO Supply/ Quality

- VLSFO supply in Vancouver remains expensive relative to competing Asian ports.
- The current spread is approximately Singapore plus USD 40-55 per metric tonne.
- Quality constraint is viscosity due to blend ratio of HFO and LSMGO.
 - Typical visc 10cst
 - Revised ISO 8217 specification 20cst minimum.

HFO Supply/ Demand

- HFO supply in Vancouver is plentiful.
- Dominant demand segments are cruise ships, container ships and crude tankers.
- While alternative fuel demand is increasing, HFO demand is also growing after 4 years of decline in the Vancouver market.
- HFO pricing is generally competitive with Asian ports.

LSMGO Supply/ Demand

- LSMGO demand continues to grow in Vancouver.
- Cruise demand dominates summer months while demand from Aframax crude tankers has provided significant incremental volume to the market.
- Vancouver pricing is generally higher than West Coast and Asian ports, however that has not suppressed demand.



LNG Bunkers

- LNG bunker supply will be available in January 2025.
- Seaspun Energy will operate the Seaspun Lions in the Northwest market with an initial focus on:
 - Cruise ships
 - Crude tankers
 - PCC vessels.



Seaspan LNG

LNG Bunker Vessel

Design

- 7600m3 Capacity
- High maneuverability with propulsion redundancy, Dual fuel
- Canadian / USCG compliance
- Underwater Radiated Noise notation with battery propulsion capabilities

Shipyard

- Proven yard focused on small scale gas carriers
- All schedule milestones achieved on time to date

Seaspan Energy

- Able to provide LNG bunker vessels where required, but focusing on West Coast North America
 - Has a proven path to design/construct/deliver complex LNG vessels
 - Continues to be interested in further fleet expansion
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Biodiesel/ Biofuel Oil

- EU Standard International Sustainability and Carbon Certification (ISCC) is the international shipping standard.
- ISCC biodiesel is not available in Vancouver.
- Biofuel oil will only be available when supply of ISCC biodiesel is readily available for blending.
- No local terminal has undertaken the audit process to meet the ISCC standard.

Methanol

- Lack of Port Infrastructure
 - No shore tanks, no transload facility, no delivery vessel.
- High cost of green methanol
- Uncertain demand for the Vancouver market



The Future of Alternative Fuels

- Ammonia
- Hydrogen
- Wind

Questions

