



H-LINE SHIPPING CO., LTD
GREEN LOAN FRAMEWORK

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1. Introduction

About H-Line Shipping Co., Ltd

H-Line Shipping Co., Ltd. (“H-Line” or the “Company”) was established in January 2014 as joint venture between Hanjin Shipping and Hahn & Co (“H&C”) and is today wholly-owned by H&C. H-Line is specialized in bulk and LNG transportation with most of the fleet employed under long-term contracts.

The Company acquired the former contracted dry bulk business of Hanjin Shipping (41 CVCs and 36 vessels) in 2014, and of Hyundai Merchant Marine (13 CVCs and 12 vessels) in 2016. Today, H-Line operates 50 vessels (43 bulk and 7 LNG) with a total capacity of 6.4M DWT.

H-Line’s business model has remained unchanged. It continues to provide sea transport primarily under long-term contracts with reputable customers like POSCO, state-owned electricity utility KEPCO, Hyundai Glovis and state-owned KOGAS. H-Line is Korea’s largest bulk carrier with a volume contracted for transportation representing approximately 25% of the dry bulk shipped yearly in Korea. Over the last year, H-Line has also signed CVC contracts with non-Korean parties in an effort to diversify its customer base beyond the Korean market.

Environmental and Social Considerations

H-Line is cognizant that key sustainability challenges of the shipping industry include the energy efficiency, the reduction of emissions related to energy use, the eco-design strategy to reduce environmental impacts of the vessels and the integration of environmental and social factors in the supply chain. The Company acknowledges its role in proving solutions to support society’s transition to a low carbon and sustainable economy.

H-Line has a formalised commitment to environmental protection, through its Company Policy (dated July 1st, 2018) and H-Line commits to 2 targets with regards to greenhouse gas (“GHG”) emissions reductions:

- A reduction of CO₂ and SO_x emissions by 0.3% per annum for their entire fleet from 2019, and
- A reduction of GHG emissions per unit load of 30% by 2030 and 50% by 2050, compared to 2015 levels

Furthermore, H-Line has environmental and social policies in place to commit on:

- Zero spills to the sea, and zero unplanned releases to the environment;
- Compliance with all environmental laws and regulations applicable to the maritime industry. In particular, as part of its commitments to IMO2020, a third of H-Line vessels have been equipped with scrubbers since June 2019, and its other vessels will be fully switched to Low Sulfur Fuel Oil (“LSFO”) by January 1st, 2020.
- Promoting the use of LNG and LSFO that have a lower environmental impact;
- Continual improvement of H-Line’s environmental performance through evaluation and investment in innovative technology such as AMP (Alternative Maritime Power supply), energy-saving devices, scrubbers, LNG-fueled vessels etc.
- End of life decommissioning of vessels policy in line with local regulations and the Hong Kong Convention
- Zero accident targets covering safe voyages, managing hazardous factors, crew safety
- Workers’ rights to freedom of association and collective bargaining covering all its responsibilities.

Green Loan Framework

This Green Loan Framework (“Framework”) guides the green loan (“Green Loan”) raised by H-Line to finance part of the construction of two LNG-fueled vessels, expected to be delivered in November 2021 and March 2022 (“Eligible Project”).

This Framework is prepared in alignment with the Green Loan Principles, released by the Loan Market Association (“LMA”), the Asia Pacific Loan Market Association (“APLMA”) and the Loan Syndications and Trading Association (“LSTA”) in March 2018 and subsequently updated in December 2018.

This Framework has the following four core components:

- Use of Proceeds
- Process for Project Evaluation and Selection
- Management of Proceeds
- Reporting

2. Green Loan Framework

2.1 Use of Proceeds

The net proceeds from the Green Loan will be used exclusively to finance in part the construction costs of the Eligible Project.

H-Line has raised a Green Loan under this Framework for an amount of USD 108,075,000. The Green Loan is raised through its wholly-owned special purpose companies HL Journey 4 S.A. and HL Journey 5 S.A. as Borrowers, and was signed in October 2019 with BNP Paribas and Korea Development Bank.

The two 180,000 dwt Capesize LNG-fueled vessels are built by at Hyundai Samho Heavy Industries Co., Ltd (“HHI”) and expected delivery between Q4 2021 and Q1 2022. H-Line acts as a Bareboat Charter Hire Purchase Agreement (“BBCHP”) charterer. These vessels are the first of their kind to be ordered by a shipping company globally:

Vessel Nos	SPC Borrower	Owner & Bareboat Charterer	Lenders	Loan Amount
8037	HL Journey 4 S.A.	H-Line Shipping Co Ltd	BNPP & KDB	USD
8038	HL Journey 5 S.A.			108,075,000

The Green Loan is borrowed by two special purpose companies (“Borrowers” or “SPCs”), whose sole purpose is to build and operate the vessels. The Green Loan is expected to cover up to 75% of the Shipbuilding Contracts (“SBC”) price, while the remaining will be financed in the form of equity, junior debt and a subsidy provided by the South Korean Government for new eco-friendly and high efficiency ships¹.

While the vessels from the Eligible Project are equipped with dual-fuel LNG engines (LNG propelled and LSFO), H-Line commits to use LNG as the main and sole fuel as long as LNG is available during the operation of the vessels.

¹ <http://www.mof.go.kr/article/view.do?articleKey=24171&boardKey=9&menuKey=375>

The Eligible Project will contribute to H-Line's GHG emissions reduction targets as well as contribute to lower H-Line's NOx and SOx emissions. The use of LNG as fuel is expected to reduce the vessels' CO₂ emissions by 23% (derived based on heavy fuel oil low calorific power of 40,600 kJ/kg compared to LNG low calorific power of 50,000 kJ/kg.); SOx emissions² by 100% (based on LNG-Fueled vessels emitting negligible SOx) and NOx emissions by ~92%. (LNG-fueled vessels are designed to comply with TIER III satisfying the condition of 3.4g/kWh NOx emission limit. LNG fueled-vessels emit 80% lower NOx compared to vessels applying TIER I which is restricted to 17.0g/kWh in NOx emission. The 92% reduction is derived based on an additional 12% reduction of NOx emission if EGR (Exhaust Gas Recirculation) and SCR (Selective Catalytic Reduction) are retrofitted.

In addition, the vessels are equipped with eco-friendly technologies such as Shaft generator, Hull coating, Hull form optimization, Hull retrofitting, Propulsion improving device, Energy efficient lighting system and Frequency controlled electric motor (as per specifications provided by shipbuilder Hyundai Heavy Industries):

- Copper Acrylate anti-fouling Paint which saves approximately 1.5 ~ 2.0% of fuel consumption by preventing barnacles from sticking to the hull,
- Hi-bow design in the prow which maximizes propulsion up to 12%,
- Optimized bilge keel design which reduces tidal wave resistance,
- Propulsion improving devices such as rudder bulb which improves approximately 1~3% of propulsion by controlling hub vortex in the propeller and Pre Swirl Duct which improves approximately 3~6% of propulsion,
- Variable Frequency Motor to the LNG Supply pump to reduce unnecessary consumption of energy by controlling frequency and speed.

2.2 Process for Project Evaluation and Selection

H-Line's contracting of the vessels is in line with the company's continuous efforts to improve its environmental performance and in line with its environmental policy.

The evaluation and selection processes were carried out as follows:-

- 1) Together with the CVC Charterer, H-Line organized a task force team, the Maritime Quality Team, for the study on eco-friendly matters in 2017 in order to best anticipate the IMO 2020 regulations.
- 2) A detailed study on LNG-fueled vessels was conducted from 2017 to 2018 to analyze the impacts and benefits to the environment, compliance with IMO 2020, availability of LNG and LSFO, cost analysis and risks on the Eligible Project.
- 3) Having concluded that LNG fuel appears to be the most efficient fuel, H-Line's Board perceived the potential of LNG fueled vessels as a profitable business decision and therefore proceeded to order the two LNG dual-fuel Capesizes in May 2019 with HHI, due to the yard's track record and excellent reputation in the shipping markets. H-Line then focused on securing a stable supply of LNG fuel in its home market by entering into negotiations with Korea Gas Corporation ("KOGAS"); to date, the discussion is still ongoing.

² SOx (Sulphur oxides) are known to be harmful to human health, causing respiratory symptoms and lung disease. In the atmosphere, SOx can lead to acid rain, which can harm crops, forests and aquatic species, and contributes to the acidification of the oceans. Limiting SOx emissions from ships will improve air quality and better protect the environment.

In addition, H-Line received a KRW 2.9 Bio subsidy from the South Korea government in 2019 for the Eligible Project, which supports the replacement of old vessels with eco-friendly new vessels (“eco-friendly support”) 2. To qualify, a Korean shipping company is required to scrap older vessels, contract new eco-friendly models and submit a subsidy application to the Ministry of Oceans and Fisheries (“MOF”). The latter then evaluates the application by reviewing the vessels’ design and specificities such as shaft generator, Hull coating, Hull form optimization, Hull retrofitting and propulsion improving device. As part of the subsidy, H-Line is required to report on the vessels’ operations and managements to MOF on regular basis.

Furthermore, the Eligible Project will need to meet H-Line’s environmental and risk procedures throughout the construction and operation, in particular response guidelines for the unloading of LNG vessels to cover the risk of LNG leakage both on the vessels and at the pier.

2.3. Management of Proceeds

The net proceeds of the Green Loan is drawn directly by the Borrowers, in accordance with payment milestones pre-defined under the shipbuilding contracts and reflected in the Green Loan agreement, and immediately applied towards payments to HHI, either via the BBCHP for the first payment or directly to HHI.

Per standard practice in shipping finance, supporting documents such as builder’s certificate and invoices from the shipyard will be required as condition precedents to any utilizations of the Green Loan.

H-Line’s Technical department will have representatives on-site during the shipbuilding construction period to monitor and supervise the construction progress.

The drawdown mechanism and related condition precedents to utilization of the Green Loan is formalized in the Green Loan agreement between the Borrowers and the Lenders.

2.4. Reporting

H-Line will report to the Lenders the proceeds allocation metrics and the environmental impact metrics on an annual basis.

The proceeds allocation metrics will be reported by H-Line’s Finance Team until full drawdown of the Green Loan whilst the environmental impact metrics of the vessels will be reported by H-Line’s Shipboard Safety Committee until the Green Loan matures.

Proceeds allocation metrics:

- Total amount allocated from the Green Loan towards the Eligible Project during the year
- Vessels’ shipbuilding schedule and instalment evidence linked to the Eligible Project
- Total amount of unallocated funds from the Green Loan towards the Eligible Project during the year

Environmental impact metrics:

- Annual reduction of SOx emissions compared to HFO vessels as baseline
- Annual reduction of NOx emissions compared to HFO vessels as baseline
- Annual reduction of CO₂ emissions compared to HFO vessels as baseline
- Share of LNG consumption vs. LSFO consumption of the dual fuel vessels

- Any material ESG controversies and other material developments relating to the Loan and to the Eligible projects

3. External Review

H-Line Green Loan Framework has been reviewed by Vigeo Eiris who has issued a Second Party Opinion verifying its credibility and confirming alignment with the Green Loans Principles.

The Green Loan Framework and Vigeo Eiris' Second Party Opinion are available on our website: www.h-lineshipping.com

4. Appendices

- Recap on the IMO 2020 Regulations:

<http://www.imo.org/en/MediaCentre/HotTopics/Pages/Sulphur-2020.aspx>

- List of the 2 LNG fueled vessels with shipbuilding instalment schedule:

Hull. No.	Contract Signing	Steel cutting	Keel laying	Launching	Delivery
8037	31 May 2019	11 Dec 2020	5 Apr 2021	2 Jul 2021	30 Nov 2021
8038	31 May 2019	12 Mar 2021	15 Jul 2021	15 Oct 2021	15 Mar 2022