# Hyundai Heavy Industries Green Finance Framework Report

May 2021



# 1. HHI's Sustainability Portfolio Snapshot

# **Environmental Impact**

### R&D of the eco-friendly vessels market

- Hyundai Heavy Industries Co., Ltd.(HHI) has focused its capabilities on developing eco-friendly technologies following the International Maritime Organization(IMO)'s environmental regulations.
- HHI developed an ammonia-fueled VLCC that drastically reduced greenhouse gas (GHG) emissions and received approval from German/Dutch ship classification society DNV-GL in October 2020.



# **Social Impact**

# Educational Environment Improvement Project

- HHI provided funds to support five schools in the community.
- The funds helped students take education in a better environment by replacing old educational equipment and repairing facilities in schools.

#### Child Scholarship Support

 HHI provided scholarships to children of low-income families in the community every month to help develop their dreams.



# 2. HHI's Green Finance Framework

# HHI Green Finance Working Group (the "GFWG")

Corporate Affairs Team

> Shipbuilding Production Engineering Department

**Electricity Planning** team

> Technology Planning Department

**Environmental** Management Team

> Technology Planning Team

**Project Planning** Department

Treasury Team

# **Project Evaluation & Selection**

#### **Initial Project Selection**

✓ Projects are required to meet all criteria established by HHI



# Project Review on Regular Basis

✓ Following project review by the GFWG, the environmental impact shall be assessed.



Approval for Allocation

✓ Allocation shall be approved and determined, depending on projects' compliance with the Framework



### Monitoring

- ✓ Annual review of the allocation
- √ Impact reporting



# **Management of Proceeds**

#### Management

• The use of proceeds information includes details of the projects/expenditures, the amount allocated to each eligible project, the balance of unallocated funds, and environmental impacts(if possible) of the projects

# **Unallocated Proceeds**

 The remaining allocation of proceeds will be invested or expended in eligible green projects in accordance with HHI's normal liquidity management policy.

# 2. HHI's Green Finance Framework

# Green Eligible Categories

Category	Eligible Project Examples
Clean Transportation	<ul> <li>Clean and sustainable shipbuilding</li> <li>Investment and expenditure in relation to design(especially direct cost related to designing of the vessels), construction and maintenance of clean and sustainable vessels("CSV") according to IMO and Norwegian shipping regulations</li> <li>Research and Development(R&amp;D) would have the below technology, design, equipment and facilities including;</li> <li>Marine engines powered by alternative fuels such as LNG, LPG, ethane, ammonia or methanol, etc.</li> <li>Eco-friendly technology such as electric propulsion, SOx reduction, volatile organic compound(VOC) recovery system, NOx reduction</li> <li>Sailing efficiency improvement such as Energy Storage System, Wind Assistance, Smartship Technologies</li> </ul>
Pollution Prevention and Control	<ul> <li>Construction and maintenance of facilities as below:</li> <li>Recycling facility of byproducts such as scrap metals, waste wood, waste paint cans</li> <li>Management and treatment facility of chemical substances</li> <li>Air pollution prevention facilities within large-scale painting factories of 50,000m³ and over from 2017 to 2023 in accordance with Management Hazardous Air Pollutants(HAPs) and Fugitive Emissions (The technology of these prevention facilities is Catalytic Oxidation (CO) which reduces VOCs produced in business sites)</li> <li>On-site due diligence/regular inspection of the above facilities</li> </ul>
Sustainable Water Management	<ul> <li>Development and installation of wastewater treatment facilities within the business sites</li> </ul>
Renewable Energy	<ul> <li>New installation of renewable generation capacity for wind turbines or solar panels at all domestic work sites</li> </ul>
Energy Efficiency	<ul> <li>Construction and maintenance of Energy Storage Systems(ESS) Center to save energy costs, reduce peak power consumption and increase en ergy efficiency</li> <li>Reduction of energy consumption by identifying real-time energy usage through remote heating and cooling control, and promoting energy saving activities</li> <li>Replacement of metals(250kW, 400kW) and other light bulbs in plants with high-efficiency LED lights</li> </ul>

# 3. Green Finance and Allocation Reporting

## HHI's Green Loan

Green Finance	June 2020 Green Loan		
Maturity Date (Tenor)	• 1 June 2023 (3 years)		
Size	• KRW 480 Billion		
Interest	<ul><li>Variable interest : CD + 2.40% p.a.</li><li>Fixed interest : 3.35% p.a.</li></ul>		
Lenders	<ul> <li>THE KOREA DEVELOPMENT BANK</li> <li>THE HONGKONG AND SHANGHAI BANKING CORPORATION LIMITED</li> <li>INDUSTRIAL AND COMMERCIAL BANK OF CHINA LIMITED</li> <li>KDB CAPITAL CORPORATION</li> </ul>		
Remarks	<ul><li>Inaugural Green Financing</li><li>Framework was set up as of 29 April 2020</li></ul>		

# KRW 480 Billion 3-years Green Loan (Jun 2020): Fully allocated

(Unit: Million)

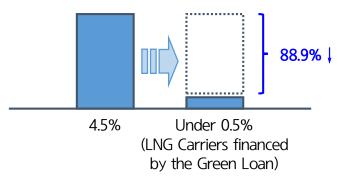
Category	Allocated (KRW)	Allocated (%)	No. of vessels
Expenditure to construction of LNG Carriers	436,745	91.0%	33
Expenditure to design of LNG Carriers	43,255	9.0%	35
Total	480,000	100.0%	36

<sup>\*</sup> LNG carriers: One of Clean and sustainable vessels

<sup>\*</sup> Eligible Green Projects may include the projects HHI has performed for three 3 years prior to the signing date of the Green Loan

# 4. Impact Reporting

# **Emission reduction of SO**x



\* IMO Sulphur cap

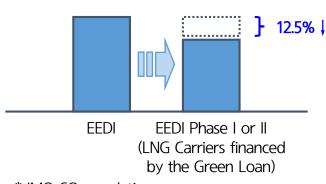


# **Emission reduction of NO**x

# Tier I Tier III (LNG Carriers financed by the Green Loan)

#### \* IMO NOx regulation

# **GHG** emission avoidance

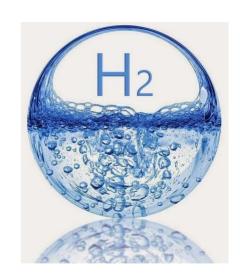


\* IMO CO2 regulation

# 5. Case Study – Green Projects

# Hydrogen Value Chain led by HHI Group

 Hyundai Heavy Industries(HHI) Group announced the "Future Growth Plan" in March 2021. HHI Group is committed to not only constructing hydrogen carriers, but also developing hydrogen fuel cells and hydrogen fuel supply system technology. The hydrogen fuel cell propulsion vessels can increase energy efficiency by more than 40% compared to conventional vessels, and dramatically reduce any air pollutants such as sulfur oxides or nitrogen oxides.



#### **Establishment of ESG committee**

- In April 2020, seven affiliates of HHI Group established an ESG committee in their Board of Directors.
- ESG committees deliberate on planning and implementing ESG strategies specific to each company's businesses, thus developing and internalizing ESG capabilities.
- It will also operate an "ESG Advisory Group" consisting of external experts in each field such as environment, social responsibilities and corporate compliance to enhance the expertise and objectivity in the practice of ESG policies.
- Through this, HHI Group plans to take the lead in solving environmental problems faced by the world through clean energy use and create a better future with eco-friendly technologies.

