



# HYUNDAI HEAVY INDUSTRIES (HHI) SUSTAINABLE FINANCE FRAMEWORK



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This statement is valid until the Framework provided in February 2022 remains unchanged.



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### Disclaimer

Our assessment relies on the premise that the data and information provided by the client to us as part of our review procedures have been provided in good faith. Because of the selected nature (sampling) and other inherent limitation of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied as per scope of work. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Statement.

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<sup>&</sup>lt;sup>1</sup> DNV Code of Conduct is available from DNV website (www.dnv.com)



# **DNV'S INDEPENDENT ASSESSMENT**

# **Scope and Objectives**

Hyundai Heavy Industries Co. Ltd. (Hereinafter called the "HHI")<sup>2</sup> is the world's number one shipbuilder, leading the global shipbuilding industry. HHI has a global business network in each of its key business units: Shipbuilding, Offshore & Industrial Plant Engineering and Engine & Machinery. HHI has not only played a pivotal role in its own nation's economic development but also has become a responsible global corporate citizen contributing to the sustainable development of the world economy and assuming its responsibility for protecting the environment.

The HHI's firm commitment to sustainable development is well shown in its management policy which focuses on following five sustainability focused areas: 1) Upgrading corporate value through continuous growth; 2) Upholding fair and transparent business practices; 3) Pursuing safe and environment-friendly business practices; 4) Promoting strong labor-management relations built on mutual respects and trust; 5) Demonstrating commitment to global corporate citizenship. In particular, in order to enhance sustainable management, HHI newly established the ESG committee at the board of directors' level in April 2020. The committee's main role is to deliberate on the planning and implementation of ESG strategies specific to the company's businesses, thus developing and internalizing ESG capabilities. Through the ESG Committee, the HHI 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. HHI will also operate an "ESG Advisory Group" consisting of external experts in different areas including environment, shared growth and compliance to ensure professional proficiency and objectivity in developing ESG-related policies.

The fruits of such determination to sustainability already started to be borne with innovative eco-friendly technology applied to shipbuilding. By concentrating its capabilities on the core value businesses such as Green Hydrogen Infrastructure, Digital Ships, and Eco-Friendly Ships, HHI aims to strengthen its position as a world-class shipbuilding and offshore company having a market-leading eco-friendly ship technology by 2030. In the area of developing eco-friendly ships, HHI has the following focus areas:

- LNG propulsion ship: Application of methane slip reduction technology, energy efficiency aids (rotor sails with ~6% fuel economy improvements and air lubrication with ~4% fuel economy improvements) and exhaust gas carbon capture, to further advance eco-friendly technology
- Ammonia propulsion ship: Securing the leading position in ammonia propulsion technology based on LPG technology
- Hydrogen fuel cell propulsion ship: Commercialization of the world's first hydrogen fuel cell propulsion ship.

Furthermore, with ISO 14001 (Environmental Management Systems) and ISO 45001 (Occupational Health and Safety Management Systems) in place, HHI makes efforts not only for prioritising environment preservation in its operation but also for maintaining health and safety in its workplaces. Its business ethics code also highlights a sense of fairness, ownership, responsibility, enthusiasm, safety, transparency and trust which can play pivotal role as cornerstone for sustainable development.

DNV Business Assurance Korea Ltd. ("DNV")<sup>3</sup> has been commissioned by HHI to review the HHI's Sustainable Finance Framework and provide a Second Party Opinion on the Framework in relation to alignment with Green Bond Principles 2021 (GBP) <sup>4</sup>, Social Bond Principles 2021 ("SBP")<sup>5</sup>, and Sustainability Bond Guidelines 2021 ("SBG")<sup>6</sup> published by the International Capital Market Association ("ICMA").

No assurance is provided regarding the financial performance of instruments issued via the HHI's Framework, the value of any investments, or the long-term environmental benefits of the transaction. Our objective has been to provide an assessment that the Framework has met the criteria established on the basis set out below.

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<sup>&</sup>lt;sup>2</sup> https://english.hhi.co.kr/

<sup>3</sup> https://www.dnv.co.kr/

<sup>&</sup>lt;sup>4</sup> https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/

 $<sup>^{5}\</sup> https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/social-bond-principles-sbp/approxed-principles-sbp/appro$ 

<sup>&</sup>lt;sup>6</sup> https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-bond-guidelines-sbg/



# Responsibilities of HHI and DNV

HHI has provided the information and data used by DNV during the delivery of this review. Our statement represents an independent opinion and is intended to inform HHI and other interested stakeholders in the Framework as to whether the Framework is aligned with the GBP, SBP, and SBG. In our work we have relied on the information and the facts presented to us by HHI. DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by HHI and used as a basis for this assessment were not correct or complete.

# Basis of DNV's opinion

We have adapted our assessment methodology to create the HHI-specific Eligibility Assessment Protocol (henceforth referred to as "Protocol"). Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion.

As per our Protocol, the criteria against which the Framework has been reviewed are grouped under the four core components:

### 1. Use of Proceeds

The Use of Proceeds criteria are guided by the requirement that an issuer of a bond must use the funds raised to finance eligible activities. The eligible activities should produce clear environmental and social benefits.

# 2. Process for Project Evaluation and Selection

The Project Evaluation and Selection criteria are guided by the requirements that an issuer of a bond should outline the process it follows when determining eligibility of an investment using Green, Social & Sustainability Bond/Loan proceeds, and outline any impact objectives it will consider.

# 3. Management of Proceeds

The Management of Proceeds criteria are guided by the requirements that a bond/a loan should be tracked within the organization, that separate portfolios should be created when necessary and that a declaration of how unallocated funds will be handled.

# 4. Reporting

The Reporting criteria are guided by the recommendation that at least annual reporting should be made of the use of proceeds and that quantitative and/or qualitative performance indicators should be used, where feasible.

# Work Undertaken

Our work constituted a high-level review of the available information, based on the understanding that this information was provided to us by HHI in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion included:

- Creation of a Protocol, adapted to the purpose of the Framework, as described above and in Schedule 3 to this Assessment;
- Assessment of documentary evidence provided by HHI on the Framework and supplemented by a high-level desktop research. These checks refer to current assessment best practices and standards methodology;
- Review of published materials by HHI and HHI's website;
- Discussions with HHI and review of relevant documentation and evidence related to the criteria of the Protocol;
   and
- Documentation of findings against each element of the criteria. Our opinion as detailed below is a summary of these findings.

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# **Findings and DNV's Opinion**

DNV's findings are listed below:

### 1. Use of Proceeds

HHI intends to use the proceeds from all debt instruments issued under the Framework to finance or refinance new or existing Eligible Green Project Categories and Eligible Social Project Categories. The Framework defines the following eligible project categories.

Eligible Green Project Categories

- Clean Transportation
- · Pollution Prevention and Control
- · Sustainable Water Management
- Renewable Energy
- Energy Efficiency

Eligible Social Project Categories

- Employment Generation
- · Access to Essential Services

DNV undertook an analysis of the associated project type to determine the eligibility as "Green" and "Socially Beneficial" in line with the GBP, SBP, and SBG 2021. HHI has provided tables mapping its Eligible Green and Social Categories with the United Nations Sustainable Development Goals ("UN SDGs"). The outlined types of project within each category and associated selection criteria are provided in the Framework in order to determine eligibility. HHI has also stated exclusion criteria in the Framework.

DNV concludes that the eligible categories outlined in the Framework are consistent with the categories outlined in the GBP, SBP, and SBG 2021.

### 2. Process for Project Evaluation and Selection

The Framework describes the process for project evaluation and selection. The Framework states that a dedicated Sustainable Finance Working Group ("SFWG") has been set up to identify and select Eligible Green Projects and Eligible Social Projects, with representatives from relevant departments. The SFWG will evaluate submitted projects by making use of not only the eligibility criteria outlined in the Framework's Use of Proceeds section but also the environmental guidelines which are applicable within HHI. In addition, the Framework clearly describes that the SFWG will meet every 12 months to review the allocation of the Sustainable Financing Transactions ("SFT") proceeds and to facilitate ongoing reporting.

DNV concludes that HHI's Framework appropriately describes the process of project evaluation and selection.

# 3. Management of Proceeds

The Framework states that the net proceeds from each SFT will be managed by HHI's treasury team, and the proceeds of each SFT will be deposited in the general funding accounts and be earmarked to Eligible Green Projects and Eligible Social Projects. HHI will also maintain a register ("Sustainable Finance Register") to keep track of the use of proceeds for each SFT. The Sustainable Finance Register will contain key information including but not limited to amount of SFT allocated to each eligible category, the balance of unallocated proceeds, and information of temporary investment for unallocated proceeds.

DNV has reviewed the evidence presented and can confirm that the proceeds arising from the future issuances will be appropriately managed.

### 4. Reporting

HHI is committed to reporting information on the allocation of the net proceeds of its SFTs until full allocation on an annual basis. The information will include 1) overview of SFTs, 2) the allocated aggregate amount by category, 3) the balance of unallocated proceeds and type (and amount) of temporary investment, 4) the proportion of financing

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vs. refinancing, and 5) the share of co-financing (when necessary). The company, where possible, also intends to report on the environmental and social impacts of the eligible projects and in this regard, it presented relevant quantifiable indicators according to each project.

DNV concludes that HHI's reporting is aligned with the relevant principles.

On the basis of the information provided by HHI and the work undertaken, it is DNV's opinion that the HHI's Sustainability Bond Framework meets the criteria established in the Protocol and are aligned with the GBP, SBP, and SBG. Please refer to Schedule 4. Sustainability Bond/Sustainability Bond Programme External Review Form for detailed information.

# for DNV Business Assurance Korea Ltd.

Seoul, Republic of Korea, 18 February 2022

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# Schedule 1. Description of Categories to be financed or refinanced through HHI's Sustainable Finance Framework

Eligible Green Project Categories	Eligible Criteria and Description	DNV Findings
Clean Transportation	1. Investment and expenditure in relation to design, construction and maintenance of clean and sustainable vessels ("CSV7) according to IMO8 and Norwegian shipping regulations9 and retrofit of existing vessels to include a dual-fuel set up, designed for alternative fuels.  CSVs would represent the below vessels:  • LNG-fuelled Vessels, LNG Dual Fuel Vessels, Methanol Dual Fuel Vessels  In line with the EU Taxonomy, the design of CSVs safeguard that the Energy Efficiency Design Index (EEDI) values of the vessels are at least 10% below IMO's EEDI requirements applicable on 1 April 2022. CSVs may have the following features:  • Dual fuel liquefied natural gas (LNG) engine  • Dual fuel methanol engine  • Hybrid powered  • Hydrogen fuel cell  • Ammonia or hydrogen in combustion engine  • Machinery efficiency and wind assistance powered  • Ability to use onshore power supply when at berth  2. Research and Development (R&D) would have, but not limited to, the below technology, design, equipment and facilities:  • Alternative dual fuel engine such as Ammonia or Methanol in combustion engine  • Ammonia and hydrogen propulsion vessels  • Eco-friendly technology such as electric propulsion, SOx reduction, VOC recovery system, NOx	Maritime transport accounts for approximately 80% of global trade by volume and 70% by value. In 2017, total volumes transported reached 10.7 billion tons. The UN Conference on Trade and Development (UNCTAD) is forecasting a 3.8 per cent Compound Average Growth Rate (CAGR) for seaborne trade between 2018 and 2023¹0.  CO2 is the largest source of greenhouse gas emissions in shipping. The Fourth International Maritime Organisation (IMO) GHG Study 2020 estimated that the sector emitted 1,056 million tonnes of CO2 in 2018, which accounts for about 2.89% of the global CO2 emission for that year According to a range of plausible long-term economic and energy business-as-usual scenarios, emissions could represent 90-130% of 2008 emissions by 2050¹¹¹. Taking into consideration large portion of shipping in global trade and ensuing high amount of CO2, decarbonising the shipping sector is crucial.  Against this backdrop, the initial GHG strategy was adopted by IMO's Marine Environment Protection Committee (MEPC) on 13 April 2018, and it envisages a reduction in carbon intensity of international shipping (to reduce CO2 emissions per transport work, as an average across international shipping, by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008); and that total annual GHG emissions from international shipping should be reduced by at least 50% by 2050 compared to 2008.  This ambitious GHG reduction goal demands beyond-business-as-usual approach in ship building. In this regard, additional guidance for decarbonization requirements is given by the EU Taxonomy, which defines EEDI threshold and the required capability of vessels to run on fuels from renewable sources, accordingly.  DNV considers that Clean Sustainable Vessels (CSVs) which HHI defines in the Framework are in alignment with the technical screening criterion outlined in chapter 6.10 1. (d) of the EU Taxonomy which states as follows:  "the vessels have an attained Energy Efficiency Design Index (EEDI) value 10 % below the EEDI requirement

<sup>&</sup>lt;sup>7</sup> Clean and sustainable vessels("CSV") in this Framework are vessels built by HHI which have specific features as defined in Section 2.1 Use of Proceeds

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<sup>&</sup>lt;sup>8</sup> http://www.imo.org/en/About/Pages/Default.aspx

<sup>9</sup> https://www.sdir.no/en/shipping/legislation/

<sup>10</sup> https://www.climatebonds.net/standard/shipping

<sup>11</sup> https://www.imo.org/en/OurWork/Environment/Pages/Fourth-IMO-Greenhouse-Gas-Study-2020.aspx



Eligible Green	Eligible Criteria and Description	DNV Findings
Project Categories	reduction  • Sailing efficiency improvement such as Energy Storage System, Wind Assistance, Smartship Technologies  3. Investment in hydrogen infrastructure / value-chain (liquefaction of hydrogen (lower energy consumption target), development of hydrogen storage facility) dedicated to green hydrogen (produced via 100% electrolysis from renewables)	zero direct (tailpipe) CO2 emission fuels or on fuels from renewable sources".12  Besides the EEDI threshold the EU Taxonomy requires the vessel to have the capability to run either on carbon free fuels (e.g. ammonia, hydrogen) or on (carbon containing) fuels from renewable energy sources. The latter is met by dual fuel LNG or methanol engines as foreseen by HHI:  - Vessels with dual fuel LNG engines can run on fossil LNG or bio gas (bio LNG) or synthetic gas (synthetic LNG) without need for technical retrofit measures to engines tanks or fuel systems when switching between fuels of different origin (i.e. the three above-mentioned "types" of LNG).  - Vessels with dual fuel methanol engines can also run on fossil methanol or bio methanol or synthetic methanol without need for technical retrofit measures to engines tanks or fuel systems when switching between fuels of different origin (i.e. the three above-mentioned "types" of methanol).  HHI also confirmed to DNV that all CSVs will not carry fossil fuels as regulated in the EU Taxonomy.  Therefore, it is DNV's opinion that HHI's projects of design, construction, and maintenance of CSVs (including its stated various features) meet the technical screening criteria of the EU Taxonomy, thus bringing positive environmental outcomes.  • DNV also considers that the planned various R&D projects (including alternative fuels such as ammonia, methanol, or hydrogen) have positive impact on promoting upgraded CSVs in the future. In particular, DNV notes that ammonia, bio-based methanol, and hydrogen look to be the highly promising carbon-neutral fuels currently in shipping industry according to various studies¹3.  • Regarding investment in hydrogen infrastructure, HHI confirmed to DNV that projects are limited to green hydrogen.
Pollution Prevention and Control	Construction and maintenance of the below facilities:  Upgrade of waste treatment facilities to improve operational efficiency  Management and treatment facility of chemical substances  Development, operation and maintenance of air pollution prevention	<ul> <li>DNV considers that the stated projects are in line with market practice, thus being conducive for pollution prevention and control.</li> <li>DNV also notes that in case of waste treatment HHI ensures that waste hierarchy will be proactively considered, meaning that reducing or reusing waste is always preferred to recycling.</li> </ul>

https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity\_en.htm?reference=6.10
 https://www.dnv.com/maritime/hub/decarbonize-shipping/fuels/future-fuels.html

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Eligible Green	Eligible Criteria and Description	DNV Findings
Project Categories	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 Volatile Organic Compounds (VOCs) produced in business sites.)  On-site due diligence/ regular inspection of the above facilities  Developing and expanding the usage of eco-friendly paint and varnish with less air pollution such as VOCs	
Sustainable Water Management	Development, installation and upgrade (to improve operational efficiency) of wastewater treatment facilities within the business sites. The issuer will follow the local environmental law in implementing related projects	<ul> <li>DNV considers that wastewater treatment facilities are conducive for sustainable water management, in particular by mitigating negative environmental impacts caused by unclean water.</li> <li>For strengthening eligibilities of the related facilities, HHI communicated with DNV that it follows the local environmental laws in implanting the projects.</li> <li>One step further, HHI communicated with DNV that in fact it employs internal environmental standards for the effluent discharge, which is stricter than the local legal requirements. DNV notes that this stricter internal standard will enable to diminish harm to environment with support of HHI's wastewater sources management system and real-time basis water quality monitoring system.</li> </ul>
Renewable Energy	<ul> <li>Construction of new renewable energy generating units such as wind turbines, or installation of solar panels at all domestic work sites</li> <li>Construction of assets and projects that are essential for installing offshore wind power generation equipment, such as Self Elevating Platform (SEP) and Crew Transfer Vessels (CTV) – Assets will be used as dedicated equipment for installation of and service to offshore wind equipment.</li> </ul>	<ul> <li>Renewable energy generating units such as wind power and solar power are deemed to be the EU Taxonomy eligible.</li> <li>DNV also notes and views positively that the projects (SEP and CTV) are dedicated to installing or maintaining offshore wind power generation equipment.</li> </ul>
Energy Efficiency	<ul> <li>Construction and maintenance of Energy Storage Systems (ESS)<sup>14</sup> centre to save energy costs, reduce peak power consumption and increase energy efficiency</li> <li>Reduction of energy consumption such as identifying real-time energy usage through remote heating and cooling control, and energy saving activities</li> <li>Replacement of metals (250kW, 400kW) and other light bulbs in plants with high-efficiency LED lights</li> </ul>	<ul> <li>Energy Storage Systems (ESS) is an essential part for renewable energy sources as supply from renewable sources (solar, wind, and so on) can vary depending upon weather situation. ESS ensures that supply of renewable energy can meet its demand by enabling extra energy to be stored and be used during peak demand later.</li> <li>DNV also considers that HHI's real-time energy usage monitoring system enables effective use of energy, eventually leading to energy savings.</li> </ul>

<sup>&</sup>lt;sup>14</sup> Energy Storage Systems are manufactured by third-party suppliers, some of which are designed and modified by HHI to achieve the best operational outcome

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Eligible Green Project Categories	Eligible Criteria and Description	DNV Findings
		<ul> <li>LED is generally known for a highly energy-efficient lighting technology. According to Energy Star, a program run by the U.S. Environmental Protection Agency and U.S. Department of Energy that promotes energy efficiency, LED lighting products produce light up to 90% more efficiently than incandescent light bulbs<sup>15</sup>.</li> <li>DNV views positively that the stated projects lead to overall energy efficiency improvement.</li> </ul>

Eligible Social Project Categories	Eligible Criteria and Description	DNV Findings
Employment Generation, including the potential effect of SME financing and microfinance	Investments in vendor financing programmes which provide preferential loan interest rates to vendors such as operating funds to lend at low-interest to SMEs in collaboration with banks e.g., Shared Growth Fund <sup>16</sup> Target Population: Categorized as SME under the Enforcement Decree of The Framework Act on Small and Medium Enterprises	<ul> <li>HHI communicated with DNV that HHI established the fund of KRW 120 billion which can be lent to SMEs up to the threefold amount (KRW 360 billion) of the original amount in collaboration with local banks.</li> <li>HHI gives up profit from interest which it could gain if the money is deposited in banks. Instead, the fund is provided to SMEs in need with low interest.</li> <li>It is DNV's opinion that the SME financing of HHI can help alleviate financial burden of SMEs especially in the midst of this pandemic period and even in the future which will be affected by aftermath of the pandemic.</li> </ul>
Access to Essential Services	Investment into safety measures: retrofit of old production facilities, installation of air-circulation systems for better working environment, safety enhancing machinery/tools for workers     Target Population: Employees of subcontractors and HHI	Despite positive outcomes brought by Korea's fast economic success, there is hidden fact that among OECD countries, Korea's industrial accident mortality rate is ranked in the highest group. In 2020 alone, industrial disasters took the lives of 882 <sup>17</sup> . Year by year industrial accidents have grown to be crucial problems in the nation, significantly obstructing wellbeing of employees and their family.
		<ul> <li>Against this background, the Severe Accident Punishment Act has been effective in Korea since January 2021, which can punish CEOs who do not fulfil their safety responsibility in workplaces in case of accidents with one or more deaths. This type of law which cuts across all industries for serious accidents are rare in the world, reflecting that Korean Government takes it very seriously to enhance wellbeing of employees by preventing from serious accidents.</li> <li>In light of peculiar situation of Korea affected</li> </ul>
		by frequent accidents, DNV positively views that HHI invests projects which can upgrade safety measures for employees. HHI communicated with DNV that the bond proceeds can be used for more safety

https://www.energystar.gov/products/lighting\_fans/light\_bulbs/learn\_about\_led\_bulbs
 http://www.hyundai-holdings.com/?p=115&idx=397
 https://eboard.moel.go.kr/indicator/detail?menu\_idx=47

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Eligible Social Project Categories	Eligible Criteria and Description	DNV Findings
		<ul> <li>personnel hiring, smart ICT system establishment, video monitoring system equipping with forklifts, to name a few.</li> <li>HHI communicated with DNV that there are about 12,000 employees in yards and among them about 10,000 are from subcontractors. With strengthened safety measures it is expected that these employees will be benefited, thus improving overall well-being (health and safety) of employees.</li> </ul>

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# **Schedule 2. Contributions to UN SDGs**

Eligible Project Categories	UN SDGs	DNV Findings
Clean Transportation	<ul> <li>SDG 9 Industry, Innovation and Infrastructure</li> <li>9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.</li> <li>SDG 13 Climate Action</li> <li>13.1 Strengthen resilience and adaptive capacity to climaterelated hazards and natural disasters in all countries</li> </ul>	
Pollution Prevention and Control	SDG 12 Responsible Consumption and Production     12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment  SDG 13 Climate Action     13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	
Sustainable Water and Wastewater Management	* 6.1: By 2020, achieve universal and equitable access to safe	
Renewable Energy	<ul> <li>SDG 7 Affordable and Clean Energy</li> <li>7.1: By 2030, ensure universal access to affordable, reliable and modern energy services</li> </ul>	
Energy Efficiency	<ul> <li>SDG 7 Affordable and Clean Energy</li> <li>7.3 By 2030, double the global rate of improvement in energy efficiency</li> </ul>	
Employment Generation including the potential effect of SME financing and microfinance  SDG 8 Decent Work and Economic Growth   8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services		
Access to Essential Services	<ul> <li>SDG 3 Good Health and Well-being</li> <li>3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.</li> <li>8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment</li> </ul>	

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# **Schedule 3. Eligibility Assessment Protocol**

# 1. Use of Proceeds

Ref.	Criteria	Requirements	DNV Findings
1a	Type of bond / loan	The Bond and Loan must fall in one of the following categories, as defined by the Green/Social Bond Principles:  Green/Social Use of Proceeds Bond  Green/Social Use of Proceeds Revenue Bond  Green/Social Project Bond  Green/Social Securitized Bond  Loan instrument made available for Green and Social project (Green and Social use of loan proceeds)	HHI's Sustainable Finance Framework clearly describes it intends to issue a green, social or sustainability bonds, loans and other debt or financing structure. HHI also clarifies that the bonds under this Framework will be in alignment with the most up-to-date principles such as GBP, SBP, and SBG of 2021.  From the Framework  SFTs include green, social or sustainability bonds, loans and other debt or financing structures tailoring to make contribution to sustainable development, the proceeds to projects which meet the eligibility criteria of the following Eligible Green and/or Social Project categories ("Eligible Sustainable Projects"), as defined as below will be applied as defined in this Framework.
1b	Sustainable Project Categories	The cornerstones of Sustainability Bond and Loan are the utilization of the proceeds of the bond and the loan which should be appropriately described in the legal documentation for the security.	Eligible project categories presented by HHI are as follows:  Green Categories  Clean Transportation Pollution Prevention and Control Sustainable Water and Management Renewable Energy Energy Efficiency  The Framework also strengthens eligibility criteria of projects by adding the exclusion list in the Framework.
1c	Environme ntal / Social benefits	All designated Green/Social Project categories should provide clear environmental / social benefits, which, where feasible, will be quantified or assessed by the Issuer.	By adopting standards or thresholds in alignment with international or national regulations, eligibilities of green projects are secured, thus leading to clear environmental / social benefits. The related benefits are also clearly stated in the Use of Proceeds. Where possible, HHI also plans to do impact reporting with relevant quantifiable indicator.
1d	Refinancing Share	In the event that a proportion of the proceeds may be used for refinancing, it is recommended that issuers provide an estimate of the share of financing vs. refinancing, and where appropriate, also clarify which investments or project portfolios may be refinanced.	In the Framework, the HHI indicates that the net proceeds can be also used to refinance existing projects. The share of refinancing will be disclosed in the annual allocation reporting. It also presents look-back period of 3 years for the case of refinancing, which is in alignment with the market practice.  From the Framework  Eligible Green Projects and Eligible Social Projects may include the projects HHI made during the 3 years prior to the issuance or signing date of the respective SFTs.

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# 2. Process for Project Selection and Evaluation

Ref.	Criteria	Requirements	DNV Findings
2a	Investment-decision process	The Issuer of a Sustainability Bond and Loan should outline the decision-making process it follows to determine the eligibility of projects using Sustainability Bond and Loan proceeds. This includes, without limitation:	The Framework states that HHI will have a dedicated Sustainable Finance Working Group (SFWG) which decides eligibility of proposed projects by relevant business units based on the Framework and relevant environmental guidelines.  From the Framework  Potential Eligible Green Projects and Eligible Social Projects will be submitted to SFWG for review by business units. The SFWG will evaluate their compliance with not only the
		A process to determine     how the projects fit within     the eligible Green and     Social Projects categories     identified in the     Green/Social Bond     Principles and	eligibility criteria outlined in the SFF's Use of Proceeds section but also the environmental guidelines which are applicable within HHI. If such project is considered as an Eligible Green Project and Eligible Social Project by the SFWG in accordance with the SFF, it will be presented to the senior management of HHI for final approval.
		Green/Social Loan Principles;  The criteria making the projects eligible for using the Sustainability Bond and Loan proceeds;  The environmental sustainability objectives, and the social objectives; and  Complementary information	HHI also states its firm commitment to strict environment and social risk management by complying with ISO 45001 (health and safety management) and ISO 14001 (environment management). HHI makes efforts to detect potential accidents before they actually happen through periodic on-site due diligence and inspection. HHI has also put in place various Human Rights management processes, which includes running a mandatory Grievance Handling Program, Supply Chain Human Rights Protection Policy for its suppliers as well as ensuring Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk areas, including conducting of risk-based due diligence in mineral supply chain.
		on process by which the issuer identifies and	Management of Environmental Risks
		manages perceived social and environmental risks associated with the relevant project	GHG Management System     HHI established the HHI Greenhouse Gas Management     System (HGMS), which enables to monitor the energy     usage and GHG emissions of each site and each emission     facility in an effective way. In 2020, HHI achieved a     significant reduction of more than 5% by managing GHGs;     the original goal was to reduce at least 5% compared to the     GHG allowances (Korea Allowance Unit).
			Energy management system     Based on the global standard of ISO 50001, HHI     established an energy management system. In order to     promote efficient energy management, the Factory Energy     Management System (FEMS) based on big data is also     utilized to optimize energy consumption for each     factory/building.
			Enhancing Energy Efficiency     In order to save energy, HHI has made various efforts; for instance, 1) building high-voltage power equipment for the test operation, 2) enhancing energy efficiency of air compression equipment, and 3) constructing a city gas monitoring system. The company has replaced all the light bulbs to LED lightings in all business sites. In 2020 alone, HHI saved about KRW 3.24 billion in energy costs.
			Green Factory     HHI is carrying out green factory activities that contribute to GHG emission reduction by recycling waste heat to produce steam and renewable energy such as wind/solar power. The company generated 1,500MWh of electricity from the wind turbines with a capacity of 1.65MW. In addition, HHI is in the process of setting up a RE100 roadmap which will aim to increase the use of renewable

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Ref.	Criteria	Requirements	DNV Findings
			energy in the plants.
			Management of Social Risks
			<ul> <li>Ethical Management         HHI's business operations are based on ethics standards including the Charter of Ethics, Code of Conduct and Business Ethics Guidelines. HHI runs a systematic and practical ethics program with a well-prepared training, promotion and action programs.</li> <li>Health and Safety Management         By complying with the ISO 45001, HHI intends to prevent serious and accidental disasters and create a safe workplace.</li> <li>Human Right Management         HHI respects the dignity and human rights of all stakeholders in direct and indirect relationships and aims to implement human rights management based on such efforts: 1) Running mandatory grievance handling programs; 2) Adopting supply chain human rights protection policy, 3) Implementing responsible supply chains of minerals from conflict-affected and high-risk areas.</li> </ul>
2b	Issuer/ borrower's environmen tal and social and governance framework	In addition to information disclosed by an issuer on its Sustainability Bond/Loan process, criteria and assurances, Sustainability Bond and Loan investors may also take into consideration the quality of the issuer's overall framework and performance regarding environmental and social sustainability.	HHI website well describes its effort for sustainability. It also publishes annual integrated report for effective communication on its sustainability effort with related stakeholders.

# 3. Management of Proceeds

Ref.	Criteria	Requirements	DNV Findings
3a	Tracking procedure	The net proceeds of Green Bond should be credited to a sub-account, moved to a sub-	The evidence reviewed shows how HHI plans to track the allocation of the proceeds.
		portfolio or otherwise tracked by the Issuer in an appropriate manner and attested to by a formal internal process that will be linked to the Issuer's lending and investment operations for Green/Social Projects.	From the Framework  The net proceeds from each SFT will be managed by HHI's International Finance Team, and the proceeds of each SFT will be deposited in the general funding accounts and be earmarked to Eligible Green Projects and Eligible Social Projects. HHI will maintain a register ("Sustainable Finance Register") to keep track of the use of proceeds for each SFT.

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Ref.	Criteria	Requirements	DNV Findings
3b	Tracking procedure	So long as the Green Bond/Loan is outstanding, the balance of the tracked proceeds should be periodically reduced by amounts matching eligible green investments or loan disbursements made during that period.	HHI's Sustainable Finance Register will include following information:  From the Framework  (1) Type of Funding Transaction  • Key information includes issuer/borrower entity, transaction date, number of transactions, principal amount of proceeds, repayment or amortization profile, maturity date and interest or coupon (and in the case of bonds, the ISIN number).  (2) Allocation of Use of Proceeds  • Name and description of Eligible Green Projects and Eligible Social Projects to which the proceeds of the SFTs have been allocated in accordance with this SFF  • Amount of SFT proceeds allocated to each Eligible Green Project and Eligible Social Projects  • The balance of unallocated proceeds  • Information of temporary investment for unallocated proceeds
3c	Temporary holdings	Pending such investments or disbursements to eligible Green Projects, the Issuer should make known to investors the intended types of temporary investment instruments for the balance of unallocated proceeds.	The Framework clearly states that any proceeds pending allocation may temporarily be held in accordance with HHI's liquidity guidelines.  From the Framework  Any balance of issuance proceeds which are not yet allocated to Eligible Green Projects and Eligible Social Projects will be held in accordance with HHI's liquidity guidelines for expenditures, or investments. HHI also commits that the temporary placements and instruments for unallocated proceeds do not finance activities in 2.1(1) Exclusions.

# 4. Reporting

Ref.	Criteria	Requirements	DNV Findings
<b>4</b> a	Periodical reporting	Issuers should make, and keep, readily available up to date information on the use of proceeds to be renewed annually until full allocation, and on a timely basis in case of material developments.	<ul> <li>The relevant information of reporting is appropriately described in the Framework as follows:</li> <li>From the Framework</li> <li>Overview of SFTs outstanding</li> <li>The aggregate amount allocated to various Eligible Green Projects and Eligible Social Projects by category</li> <li>The balance of unallocated proceeds and type of temporary investment (type and amount)</li> <li>The proportion of proceeds allocated to new financing vs. refinancing</li> <li>The share of co-financing in the case that other finance sources are used</li> <li>Where possible, HHI will also provide annual impact reporting on relevant impact metrics for each category of eligible projects.</li> <li>HHI presented relevant impact indicators for calculating environmental and social impact. DNV encourages HHI to issue annual impact reporting to keep track of impact of the projects.</li> </ul>

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Ref.	Criteria	Requirements			DNV Findings
		Green Categories			
			Green Projects		Impact Indicators
			Clean Transportation	•	Number of LNG and methanol dual- fuel Vessels financed Vessels' consumption of alternative fuel vs. conventional fossil fuel oil in tonnes and fuel oil equivalents GHG emissions avoided (tCO <sub>2</sub> e/year) Annual emission reduction of NOx,
					SOx
			Pollution Prevention and Control	•	GHG emission avoided (tCO₂e/year) Annual emission reduction of NOx, Dust
		Sustainable Water Management	•	Amount of wastewater (ton/year) Amount of BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand) and SS (Suspended Solids) (kg)	
		Renewable Energy	•	Renewable energy produced (MWh/year) Renewable energy capacity (MW)	
		Energy Efficiency	•	Amount of energy saved (MWh) Amount of Energy Storage by ESS (Energy Storage System) Centre (MWh)	
		Social Category	ories		
		Social Projects		Impact Indicators	
		Employment Generation	•	Number / Amount of loans provided Number of vendors benefited Fatality rate per 10,000 workers	
			Access to Essential Services	•	Accident rate (accident rate per 100 workers; calculated by total number of accidents divided by total workers x 100)

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# Schedule 4. Sustainability Bond / Sustainability Bond Programme External Review Form

### Section 1. Basic Information

### Issuer name:

Hyundai Heavy Industries (HHI)

# Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:

HHI Sustainable Finance Framework, February 2022

### Independent External Review provider's name:

DNV Business Assurance Korea Ltd.

### Completion date of this form:

18 February 2022

### Publication date of review publication:

18 February 2022

# Section 2. Review overview

### **SCOPE OF REVIEW**

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBPs:

X	Use of Proceeds  Management of Proceeds	$\boxtimes$	Process for Project Evaluation and Selection Reporting
ROLE( ⊠	S) OF INDEPENDENT EXTERNAL REVIEW PROV Second Party Opinion	IDER	Certification
	Verification		Scoring/Rating
	Other (please specify):		

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

# EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (if applicable)

On the basis of the information provided by HHI and the work undertaken, it is DNV's opinion that the HHI's Sustainable Finance Framework meets the criteria established in the Protocol and are aligned with the GBP, SBP, and SBG 2021.

# Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

### 1. USE OF PROCEEDS

# Overall comment on section (if applicable):

HHI intends to use the proceeds of the Sustainable Financing Transactions (SFTs) issued under the Framework to finance or refinance, in part or in full, new and/or existing Eligible Green and/or Social Projects. DNV concludes that the HHI's Framework is aligned with the GBP, SBP, and SBG 2021.

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$\boxtimes$	Renewable energy	$\boxtimes$	Energy efficiency			
$\boxtimes$	Pollution prevention and control		Environmentally sustainable management of living natural resources and land use			
	Terrestrial and aquatic biodiversity conservation	$\boxtimes$	Clean transportation			
$\boxtimes$	Sustainable water and wastewater management	t 🗆	Climate change adaptation			
	Eco-efficient and/or circular economy adapted products, production technologies and processe	s	Green buildings			
	Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs		Other (please specify):			
If applica	able please specify the environmental taxonomy, in	if other tha	n GBPs: EU Taxonomy and Climate Bonds			
Use of	proceeds categories as per SBP:					
	Affordable basic infrastructure	$\boxtimes$	Access to essential services			
	Affordable housing	$\boxtimes$	Employment generation / programs designed to prevent and/or alleviate unemployment stemming from socioeconomic crises			
	Food security and sustainable food systems		Socioeconomic advancement and empowerment			
	Sustainable water and wastewater management	t 🗆	Climate change adaptation			
	Unknown at issuance but currently expected to conform with SBP categories, or other eligible areas not yet stated in SBPs		Other (please specify): Response to Health and Natural Disaster Crisis			
If applica	able please specify the social taxonomy, if other the	han SBPs:	N/A			
Targe	t populations:					
☐ Living below the poverty line		☐ Excluded and/or marginalised populations and /or communities				
☐ People with disabilities		☐ Migrants and /or displaced persons				
☐ Undereducated		☑ Underserved, owing to a lack of quality access to essential goods and services				
☐ Unemployed		☐ Women and/or sexual and gender minorities				
☐ Aging populations and vulnerable youth		☑ Other vulnerable groups, including as a result of natural disaster/socioeconomic crisis/pandemic				
☐ Oth	☐ Other (please specify):					

# 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

# Overall comment on section (if applicable):

The proceeds will be allocated to finance and refinance the assets as defined in Schedule 1. DNV reviewed the Framework which describes the process through which projects are evaluated and selected. DNV can confirm the proceeds go through a well-placed internal process for evaluation and selection. HHI will have a dedicated Sustainable Finance Working Group (SFWG) which decides eligibility of proposed projects by relevant business units based on the Framework and relevant environmental guidelines.

# **Evaluation and selection**

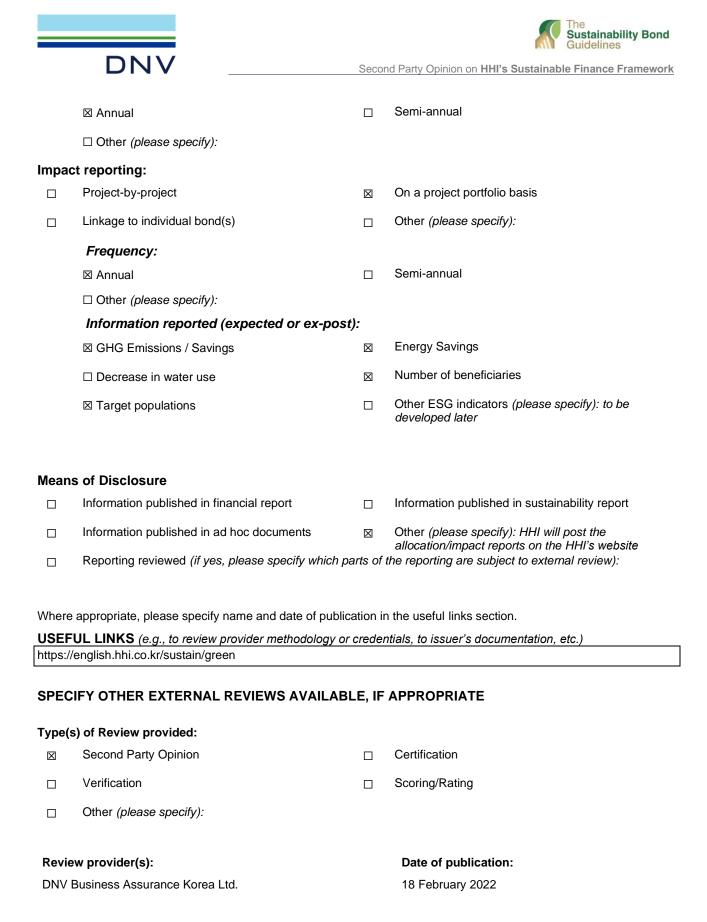
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The
Sustainability Bond
Guidelines

$\boxtimes$	Credentials on the issuer's green objectives	$\boxtimes$	Documented process to determine that projects fit within defined categories				
$\boxtimes$	Defined and transparent criteria for projects eligible for Sustainability Bond proceeds		Documented process to identify and manage potential ESG risks associated with the project				
	Summary criteria for project evaluation and selection publicly available		Other (please specify):				
Inforn	nation on Responsibilities and Accountabilit	у					
	Evaluation / Selection criteria subject to external advice or verification	$\boxtimes$	In-house assessment				
	Other (please specify):						
	NAGEMENT OF PROCEEDS						
The France The Register procee	marked for allocation within HHI's general account. H	HI wil T. HHI nding	also expresses its plan regarding use of unallocated				
Track	ing of proceeds:						
$\boxtimes$	Sustainability Bond proceeds segregated or tracked	d by th	ne issuer in an appropriate manner				
$\boxtimes$	Disclosure of intended types of temporary investme	ent ins	truments for unallocated proceeds				
	Other (please specify):						
Additi	ional disclosure:						
	Allocations to future investments only	$\boxtimes$	Allocations to both existing and future investments				
	Allocation to individual disbursements	$\boxtimes$	Allocation to a portfolio of disbursements				
$\boxtimes$	Disclosure of portfolio balance of unallocated proceeds		Other (please specify):				
4 RFI	PORTING						
Overal HHI int	Il comment on section (if applicable): lends to publish a report on the use of proceeds on a led. Where possible, HHI will also report environment made available on the HHI's website.						
Use o	f proceeds reporting:						
	Project-by-project	$\boxtimes$	On a project portfolio basis				
	Linkage to individual bond(s)		Other (please specify):				
	Information reported:						
	☑ Allocated amounts	$\boxtimes$	Sustainability Bond financed share of total investment				
	☐ Other (please specify):						
	Frequency:						

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# ABOUT ROLE(S) OF REVIEW PROVIDERS AS DEFINED BY THE GBP AND THE SBP

- 1. Second Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- 2. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- 3. **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- 4. Green Bond Scoring/Rating: An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

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# **About DNV**

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