



Annual Report of Sustainability Bond in 2021 and Green Bond in 2022 (as of July 31, 2023)

With respect to the bonds issued by Kawasaki Heavy Industries, Ltd., all the funds raised were allocated to the target projects. Indicators of the environmental and social effects of the appropriation of the funds are shown on Page 2.

■The list of bonds subject to reporting

Bond number	Issued date	Due date	Amount (yen)	Type of SDGs Bond
58th	2021/7/15	2031/7/15	10 Billion	sustainability bond
59th	2022/7/14	2032/7/14	9 Billion	green bond



■The status of funds appropriation

Criteria	Projects	The status of funds appropriation	
		59th	58th
Popularization of automated robotic PCR testing systems 	Investment in the development of container-type PCR testing systems	/	2 Billion Yen (fully appropriated)
	Investment in the manufacturing of container-type PCR testing systems		
	Investment in the development of an automated PCR testing platform (Web reservation system, etc.)		
Establishment of a Clean Hydrogen Supply Chain 	Investment in development and demonstration for the establishment of a clean hydrogen supply chain	9 Billion Yen (fully appropriated) ※1	8 Billion Yen (fully appropriated)
	Investment in manufacturing for the establishment of a clean hydrogen supply chain		

※1 Used to refinance funds from FY 2019 to FY 2021

Annual Report of Sustainability Bond in 2021 and Green Bond in 2022 (as of July 31, 2023)

Impact reporting

Criteria	Projects	Output indicators	Outcome indicators
Popularization of automated robotic PCR testing systems 	Investment in the development of container-type PCR testing systems	We have been providing solutions to social issues, such as reducing the risk of infection by healthcare workers and contributing to the quickly recovery of passenger demand, by taking advantage of the features of our automated robotic PCR testing systems, which enable high-precision and high-capacity testing. As a result of the transition of COVID-19 to Category V Infectious Diseases, demand for PCR testing is expected to decrease significantly, and we recognized that it was able to fulfill a certain role in the automated robotic PCR testing systems. The number of PCR tests reached 850,000 for 2 years.	
	Investment in the manufacturing of container-type PCR testing systems		
	Investment in the development of an automated PCR testing platform (Web reservation system, etc.)		
Establishment of a Clean Hydrogen Supply Chain 	Investment in development and demonstration for the establishment of a clean hydrogen supply chain	<ul style="list-style-type: none"> ● Status of progress in R&D and demonstration <Status of progress in R&D> <ul style="list-style-type: none"> • Obtained an Approval in Principle (AiP) from Nippon Kaiji Kyokai (ClassNK) for a large, 160,000 m³ liquefied hydrogen carrier (※2) • Completed the world's first basic engineering works for a hydrogen marine main boiler This boiler, together with the steam turbine plant and fuel supply system, will be used in the dual fuel propulsion system of large-sized liquefied hydrogen carriers. This propulsion system is also included in the above AiP. (※3) • Obtained AiP from Nippon Kaiji Kyokai (ClassNK) for Kawasaki's dual fuel generator engine using hydrogen gas as fuel, which will be installed on the 160,000 m³ liquefied hydrogen carrier (※4) • Completed technological development for a cargo containment system (CCS) to be used in large-sized liquefied hydrogen carriers This project was carried out under the New Energy and Industrial Technology Development Organization (NEDO) subsidy program "Technology Development Project for Building a Hydrogen Society, Technology Development for Using Hydrogen Energy on a Large Scale, Development of Large-Scale Transport and Storage Equipment and Export and Import Terminal Equipment for Liquefied Hydrogen." (※5) • Executing hydrogen liquefying project for increasing in size/efficiency which was adopted by NEDO's fund as well • Conducting technical demonstration tests on the swivel joint method (enlarging in size) for the liquefied hydrogen loading arm system <Status of progress in demonstration> <ul style="list-style-type: none"> • Japan Suiso Energy (JSE) was established in June 2021 as a company that will research, plan, operate and invest in the establishment of a commercial scale global supply chain of liquefied hydrogen. In February 2023, Iwatani Corporation decided to invest in JSE, thereby strengthening cooperation for the commercialization. • JSE selected Port of Hastings (Australia) for a hydrogen export site, and the Kawasaki Coastal Area (Japan) for a hydrogen receiving site. (※6) JSE plan to move forward with more specific studies toward the commercialization. 	<ul style="list-style-type: none"> ● Amount of CO2 emission reduction through hydrogen use (Theoretical value) (※8)
	Investment in manufacturing for the establishment of a clean hydrogen supply chain	<ul style="list-style-type: none"> ● Amount of clean hydrogen transported (※7) 	

※2 Press Release: [Kawasaki Obtains AiP for Large, 160,000m³ Liquefied Hydrogen Carrier](#) | Kawasaki Heavy Industries, Ltd.

※3 Press Release: [Kawasaki Completes World's First Basic Engineering Works for Hydrogen Marine Main Boiler](#) | Kawasaki Heavy Industries, Ltd.

※4 Press Release: [World's First AiP Granted to Kawasaki's 2.4 MW Class Dual Fuel Generator Engine Using Hydrogen Gas as Fuel](#) | Kawasaki Heavy Industries, Ltd.

※5 Press Release: [Technological Development of Cargo Tank for Large Liquefied Hydrogen Carriers Completed](#) | Kawasaki Heavy Industries, Ltd.

※6 Press Release: [Liquefied Hydrogen Supply Chain Commercialization Demonstration Project.pdf](#) (japansuisoenergy.com)

※7 The goal is to have capability to transport 225 thousand tons/year or more of liquefied hydrogen to Japan by FY 2031.

※8 CO2 emission reduction by using transported hydrogen (225 thousand tons/year ※7) is about 1.6 million tons/year (theoretical value).