



# **SECOND PARTY OPINION**

# MITSUBISHI HEAVY INDUSTRIES, LTD. GREEN/TRANSITION FINANCE FRAMEWORK (AUGUST 2024)

Prepared by: DNV Business Assurance Japan K.K.

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This assessment was additionally assessed in August 2024 as Revision 1 to the "MHI Green/Transition Finance Framework," which was revised with the addition of new projects and the updates of the CTFH, GLP, GBGL, and GLGL.



#### **Executive Summary**

Mitsubishi Heavy Industries, Ltd. (hereinafter, "MHI" \*including MHI Group) was founded on 7 July 7 1884 by Yataro Iwasaki, the founder of Mitsubishi, as Nagasaki Shipyard & Machinery Works, after leasing the Nagasaki Shipyard & Machinery Works from the Ministry of Engineering. Today, MHI is engaged in manufacturing, installation, sales, and service in the four segments: "Energy Systems," "Plants & Infrastructure Systems," "Logistics, Thermal & Drive Systems," and "Aircraft, Defense & Space," in cooperation with its affiliated companies.

In 1970, MHI established the "Our Principles" as its management philosophy. In keeping with this spirit, MHI serves as a manufacturing corporation that contributes to societal progress through its business endeavors of delivering products and technologies in support of social and industrial infrastructure worldwide. In this context, MHI has declared "MISSION NET ZERO" with the aim of becoming carbon neutrality by 2040, and has set the steady implementation of Growing Core Businesses (e.g., GTCC (Gas Turbine Combined Cycle) and nuclear power) and the promotion of commercialization in Future Growth Areas (e.g., hydrogen, ammonia, and CCUS) as specific measures in the "2024 Medium-Term Business Plan (FY2024-FY2026)."

In pursuing these initiatives, MHI has set forth its transition efforts as a roadmap for becoming carbon neutrality in "MISSION NET ZERO." These efforts are consistent with the World Energy Outlook of the International Energy Agency and the Technology Roadmap to Promote Transition Financing (Ministry of Economy, Trade and Industry; Power and Gas Sector in February 2022, Iron and Steel Sector in October 2021, Chemical Sector in December 2021; Ministry of Land, Infrastructure, Transport and Tourism; International Shipping Sector in December 2020, Aviation Sector in May 2024).

MHI has revised the "MHI Green/Transition Finance Framework (hereinafter, the "Framework")" to engage in dialogue with investors and a wide range of market participants to lead transition efforts toward a decarbonized society, raise green/transition finance contributing to transition strategies, and implement the finance in a manner consistent with newly added projects and internationally established frameworks that have been updated as the latest version.

DNV Business Assurance Japan K.K. (hereinafter, "DNV"), as an external reviewer, evaluated the eligibility of the Framework.

Specifically, DNV provided the eligibility evaluation for frameworks against the following handbook, principle and guidelines which are widely recognized:

- Climate Transition Finance Handbook (International Capital Market Association, 2023, hereinafter CTFH)
- **Basic Guidelines on Climate Transition Finance** (Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment, 2021, hereinafter, CTFBG)
- Green Bond Principles (International Capital Market Association, 2021, hereinafter GBP)<sup>\*1</sup>
- Green Bond Guidelines (Ministry of the Environment, 2022, hereinafter GBGL)
- Green Loan Principles (Loan Market Association (LMA) and others, 2023, hereinafter GLP)
- Green Loan Guidelines (Ministry of the Environment, 2022, hereinafter GLGL)
- \*1: Based on the "Green Enabling Project Guidance document" published in June 2024, DNV has confirmed that the eligibility criteria contained in the Framework are applicable/compliant.

The following is a summary of the assessment results for each common element indicated in the above handbooks, principles, and guidelines.

## <CTF Eligibility assessment results> CTF-1. Issuer's climate transition strategy and governance:



The Transition Strategy of the MHI as fundraiser has set a long-term goal "MISSION NET ZERO" to contribute to carbon neutrality by 2040, consistent with the goals of the Paris Agreement and will contribute to the realization of carbon neutrality on both the supply side and demand side of energy as an important initiative presented in the various plans and strategies for decarbonization in Japan.

These efforts are consistent with the International Energy Agency's World Energy Outlook, the pathway of the Ministry of Economy, Trade and Industry's Technology Roadmap in the Power, Gas, Iron and Steel, and Chemical sectors and the Ministry of Land, Infrastructure, Transport and Tourism's Roadmap in International Shipping and Aviation sectors, and Japan's various plans and strategies toward decarbonization. MHI has set the steady implementation of Growing Core Businesses (e.g., GTCC and nuclear power) and the promotion of commercialization in Future Growth Areas (e.g., hydrogen, ammonia, and CCUS) as specific measures for the three-year period of the "2024 Medium-Term Business Plan." In addition, as governance and disclosure related to implementation, an internal structure and information disclosure process based on the recommendations of the TCFD<sup>\*1</sup> have been established. Furthermore, DNV judges that the provision of advanced technology through ideas and initiatives based on various strategies contributes to the gist of just transition. These are disclosed in the Framework and other documents and meet the disclosure elements of CTF-1.

\*1: Task Force on Climate-related Financial Disclosures

#### CTF-2. Business model environmental materiality:

MHI has identified "climate change" as an environmental materiality under the theme of "providing energy solutions to enable a carbon neutral world" and this is closely related to MHI's efforts to contribute to the transformation of both the energy supply and demand sides of its core business, including the Energy Systems, Plant & Infrastructure Systems, and Logistics, Thermal & Drive Systems.

Materiality is identified through analysis and evaluation methods that take into account both positive and negative aspects of the business, utilizing the GRI Standards<sup>\*1</sup>, ISO 26000, SASB Standards, TCFD, etc. In addition, our approach to environmental materiality includes not only emission reductions from MHI's own business activities, but also activities that contribute to the reduction of Scope 3. GHG emissions (Scopes 1-3) have also been disclosed for the last three years. In addition, contribution to the SDGs, described below, is also taken into consideration. These are disclosed in the Framework and other documents, and meet the disclosure elements of CTF-2.

\*1: Global Reporting Initiative (an international standard providing ESG-related reporting, management and analysis tools)

#### CTF-3. Climate transition strategy and targets to be science-based:

MHI's transition strategy is defined by science-based targets and pathways. Specifically, it is consistent with the International Energy Agency's World Energy Outlook and the Ministry of Economy, Trade and Industry's Technology Roadmap for Power, Gas, Iron and Steel, and Chemical sectors and the Ministry of Land, Infrastructure, Transport and Tourism's Roadmap in International Shipping and Aviation sectors, which are described in CTF-1. In addition to  $CO_2$  emission reductions from its own activities, long-term and short- to medium-term targets are indexed and quantified, taking into account Scope 3 and reduction contributions, and the process for achieving these targets is clarified. In 2030, the mid-point of the 2040 carbon neutrality target, MHI has set a target to reduce the absolute value of Scopes 1 and 2 by approximately 480,000 tonnes (50% reduction compared to FY2014) and of Scope 3 by approximately 680 million tonnes (50% reduction compared to FY2019). For Scope 3, it is indicated that MHI aims to achieve carbon neutrality by 2040 by providing products, technologies, and services related to  $CO_2$  capture, transport, storage, and utilization to



industries that have difficulty in reducing emissions, and by taking into account the emission reductions. These are disclosed in the Framework or through a second party opinion, and meet the disclosure elements of CTF-3.

#### **CTF-4. Implementation transparency:**

MHI has organized a basic investment plan for the execution of the transition strategy and an overview of the results and impact of the execution. Specifically, under the "2024 Medium-Term Business Plan," a cumulative total of 650 billion yen is planned to be invested in Growing Core Businesses and Future Growth Areas over three years, almost double the amount of the "2021 Medium-Term Business Plan," with a total of 2 trillion yen planned from FY2021 to 2030, which encompasses projects to be implemented under green/transition finance. It was confirmed that future overall and individual investments necessary to implement the transition strategy are planned to be executed according to the appropriate timelines in accordance with internal management systems and processes, taking into account CTF-1 to CTF-3. In addition, the financial impact is estimated by applying the carbon price projections to the Scopes 1 and 2 forward-looking values in the absence of CO<sub>2</sub> emission reduction measures. These are disclosed in the Framework or through this Second Party Opinion and meet the disclosure elements of CTF-4.



#### <GBP/GLP Eligibility assessment results>

#### GBP/GLP-1. Use of Proceeds:

MHI defines the eligibility criteria for the use of proceeds as green/transition projects that directly or indirectly contribute to the realization of transition strategies and goals. Specifically, green/transition projects are identified in the eligible project/project categories listed below and may be allocated to finance one or more of these research and development, business development, business operations, or other related expenditures, either as new expenditures or as refinancing of existing expenditures (**bold text** indicates new projects). DNV has confirmed that green/transition projects are consistent with the elements of CTF-1 to 4. Green/Transition projects have been evaluated by MHI to provide clear environmental benefits to the transition strategy and are expected to make direct and indirect contributions to the SDGs. These processes are consistent with GBP/GLP-1.

Eligible businesses and/or projects	Eligibility Criteria			
Renewable Energy	<ul> <li>Wind power (wind power plants)</li> <li>Geothermal power (geothermal power plants)</li> <li>Solar power</li> </ul>			
Clean Energy	<ul> <li>Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen firing)</li> <li>Ammonia gas turbine (ammonia power generation businesses and/or projects for 100% ammonia firing)</li> <li>Steam Power (conversion to 100% ammonia firing)</li> <li>Gas engine for power generation (100% hydrogen firing)</li> <li>Hydrogen production (green)</li> <li>Ammonia production</li> </ul>			
Relevant SDGs				

\*1 Projects that have confirmed for eligibility as green projects can be incorporated in future green bond issuance. Green projects are also permitted within the CTFBG to be

Table 1: Green Projects<sup>\*1</sup>

Table 2: Transition Projects<sup>\*2</sup>

Eligible businesses and/or projects	Eligibility Criteria
Decarbonize existing infrastructure	<ul> <li>LNG-fueled high-efficiency gas turbine</li> <li>Steam Power (conversion to ammonia co-firing)</li> <li>Nuclear Energy Systems</li> <li>Gas engine for power generation (hydrogen co-firing)</li> <li>Metals machinery (hydrogen- reduced ironmaking, etc.)</li> <li>Material Handing (high efficiency and fuel cell powered)</li> <li>Hydrogen gas turbine (co-firing)</li> <li>Ammonia gas turbine (co-firing)</li> <li>Synthetic fuel such as Sustainable Aviation Fuel (SAF)</li> </ul>
Build a hydrogen solutions ecosystem	<ul> <li>Hydrogen compressors (for hydrogen production, transport and storage, etc.)</li> <li>Hydrogen production (blue or turquoise, etc.)</li> <li>Ammonia production (blue or turquoise, etc.)</li> </ul>
Build a CO <sub>2</sub> solutions ecosystem	<ul> <li>CO<sub>2</sub> capture and storage</li> <li>CO<sub>2</sub> transport (liquefied CO<sub>2</sub> carries, etc.)</li> </ul>
Relevant SDGs	

\*2 Some projects classified as transition projects at this time may be green projects if they meet green criteria by applying future technological innovations (e.g., application or use of green fuels/production processes, continued use of nuclear power (or energy) as necessary to achieve carbon neutrality, achievement of performance to meet CO<sub>2</sub> emission standards as a green project, etc.).

incorporated as part of a transition bond issuance. solutions cosystem Relevant SDGs



#### GBP/GLP-2. Process for Project Evaluation and Selection:

MHI will ensure that the transition project does not conflict with the Exclusion Criteria previously established in the Framework, in addition to meeting the GBP/GLP-1 eligible project category. Specifically, after the Finance Department confirms that the projects selected by the business divisions meet the eligibility criteria, the Chief Financial Officer makes the final decision. These processes are consistent with GBP/GLP-2.

#### **GBP/GLP-3.** Management of Proceeds:

The proceeds are managed by the Finance Department on a regular basis (at least once a year) using an internal management system to manage the allocation of proceeds for each project. The system is equipped to track the fact that the proceeds have been allocated. Pending the allocation to eligible businesses and/or projects, the amount of unallocated proceeds will be held in cash or cash equivalents.

#### **GBP/GLP-4.** Reporting:

MHI will announce on its website the status of fund allocation (allocated/unallocated amount, new/refinancing) until the proceeds are fully allocated. MHI will also disclose the outline of the project and its environmental benefits on the MHI website to the extent practicable, at least until the proceeds are fully allocated. (for projects undergoing research and development, etc., the progress status and the expected environmental improvement effects will be included). Any major changes in transition strategies or pathways, allocation plans, or actual results will be reported in a timely manner or in the reporting.

Based on the assessment of the Framework and other relevant documents and information provided by MHI, DNV has confirmed that the Framework meets the criteria required by the relevant framework and eligibility as Green/Transition Finance. It was also confirmed that the Green/Transition Finance to be implemented in the future by MHI would be appropriately planned and implemented in accordance with the Framework.



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Revision History

Revision number	Date of issue	Remarks
0	18 March 2022	Initial
1	2 August 2024	<ul> <li>Additional eligibility assessment for the Framework revised along with the updates of CTFH, GBP/GLP, and GBGL/GLGL, added guidance, etc.</li> </ul>
		<ul> <li>Eligibility assessment for green/transition projects added to the revised Framework</li> </ul>

#### Disclaimer

Our assessment relies on the premise that the data and information provided by Issuer 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.

#### Statement of Competence and Independence

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV Code of Conduct1 during the assessment and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV was not involved in the preparation of statements or data included in the Framework except for this Statement. DNV maintains complete impartiality toward stakeholders interviewed during the assessment process.

 $<sup>^{1}</sup>$  DNV Code of Conduct is available from DNV website (www.DNV.com)



#### i. About the Issuer

Mitsubishi Heavy Industries, Ltd. (hereinafter, "MHI" \*including MHI Group) was founded on 7 July 1884 by Yataro Iwasaki, the founder of Mitsubishi, as Nagasaki Shipyard & Machinery Works, after leasing the Nagasaki Shipyard from government. Today, in cooperation with its affiliated companies, MHI operates in the following segments.

		Revenue (FY2023) <b>¥4,657</b> (US\$30.8 bi	illion)
			Systems 17.0%
	-		ive Systems 28.2%
			ce 17.0%
Energy Systems	_		
Energy Systems Cas & steam power systems Compressors Marine machinery, etc.	- Núclear pawer systems - Aero engines	Plants & Infrastructu • Commercial ships • Environmental systems • Machinery systems, etc	
Cas & steam power systems Compressors Marine machinery, etc. Logistics, Thermal & D	Aero engines	Plants & Infrastructu • Commercial ships • Environmental systems • Machinery systems: etc Aircraft, Defense & S	re Systems - Engineering - Metals machinery pace
Gas & steam power systems Compressors Marine machinery, etc Logistics, Thermal & D Material handling systems	Aero engines rive Systems Engines	Plants & Infrastructur • Commercial ships • Environmental systems • Machinery systems, etc Aircraft, Defense & S • Commercial aviation	re Systems - Engineering - Metals machinery pace - Defense aircraft
Cas & steam power systems Compressors Marine machinery, etc. Logistics, Thermal & D	Aero engines <b>Five Systems</b> Engines HVAC systems	Plants & Infrastructu • Commercial ships • Environmental systems • Machinery systems: etc Aircraft, Defense & S	re Systems - Engineering - Metals machinery pace

#### ii. Issuer's Initiatives for ESG/SDGs

The MHI Group is committed to "developing business activities that take into its diverse range of our stakeholders into consideration and return profits to all stakeholders in optimum fashion, while at the same time providing excellent products and technologies to realize a 'sustainable society' and a secure future for people and the planet." Approach to sustainability promotion based on this concept, MHI aims to address materiality through its business activities and contribute broadly to the achievement of the SDGs, the sustainable development goals set by the United Nations (Table-1).



When going about identifying Material Issues, MHI first took an inventory of MHI Group businesses and linked them to a list of social issues prioritized in line with international frameworks — including the SDGs, the GRI Standards, ISO 26000, the Sustainability Accounting Standards Board (SASB) Standards, the EU taxonomy and others. Activities to address materiality are promoted by the responsible person/department in cooperation with business units and related departments, and the progress is monitored at the "Materiality Council" to implement the PDCA cycle.

The materiality to which Green/Transition Finance is mainly related is "provide energy solutions to enable a carbon neutral world."

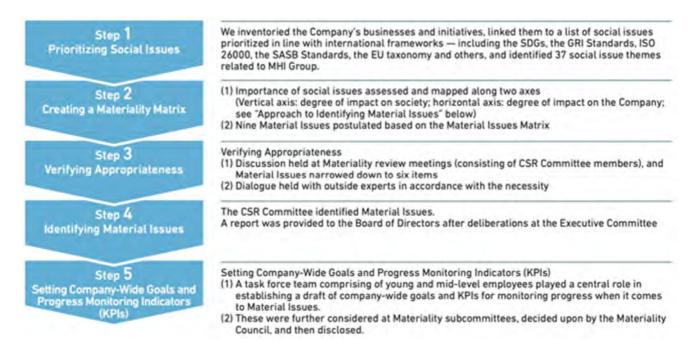


Table-1 Materiality,	Problem	Recognition	. and Com	panv-wide Goals

Materiality	Company-wide goals
1. Provide energy solutions to enable a carbon neutral world [Officer in Charge: Head of GX Solutions]	<ul> <li>Reduce the CO<sub>2</sub> emissions of MHI Group. Achieve Net Zero CO<sub>2</sub> emissions from its operations by 2040 (Scopes 1 and 2)</li> <li>Contribution to society throughout the value chain by 2040. Achieve Net Zero CO<sub>2</sub> emissions from its entire value chain by 2040 (Scope 3 + reduction through CCUS)</li> </ul>



2. Transform society through AI and digitalization [Officer in Charge: CTO]	<ul> <li>Expand lineup of useful and sustainable AI/digital products meeting needs of customers and users</li> <li>Contribute to a sustainable society through future-oriented energy management strategies that use AI and digitalization to appropriately and efficiently manage power supply and demand</li> <li>Improve our working environment to produce creative products</li> </ul>
3. Build a safer and more secure world [Officer in Charge: CTO]	<ul> <li>Boost the resilience of products, business, and infrastructure</li> <li>Implement fully-automated and labor-saving measures</li> <li>Continuously strengthen cybersecurity measures for all MHI products</li> </ul>
4. Promote diversity and improve employee engagement [Officer in Charge: In charge of HR]	<ul> <li>Project new value through participation of diverse human resources</li> <li>Ensure safe and comfortable workplaces</li> <li>Improve our environment that maximizes employee performance, and develop human resources who are healthy, energetic and able to contribute to society</li> </ul>
5. Enhance corporate governance [Officer in Charge: GC]	<ul> <li>Further enhance deliberations by the Board of Directors</li> <li>Promote legal compliance and honest and fair business practices</li> <li>Further promote responsible (CSR) procurement in the global supply chain</li> <li>Create opportunities to explain non-financial information</li> </ul>

#### iii. Issuer's Environmental Initiatives

In 1970, MHI established the "Our Principles" as its management philosophy. In keeping with this spirit, MHI serves as a manufacturing corporation that contributes to societal progress through its business endeavors of delivering products and technologies in support of social and industrial infrastructure worldwide. In this context, MHI has declared "MISSION NET ZERO" with the aim of becoming carbon neutrality by 2040, and has set the steady implementation of Growing Core Businesses (e.g., GTCC and nuclear power) and the promotion of commercialization in Future Growth Areas (e.g., hydrogen, ammonia, and CCUS) as specific measures in the "2024 Medium-Term Business Plan (FY2024-FY2026)" (Figure-1).

In pursuing these initiatives, MHI has set forth its transition efforts as a roadmap for becoming carbon neutrality in "MISSION NET ZERO" (Figure-2).

In the roadmap for transitioning to carbon neutrality, MHI has set the goal of reducing its own CO<sub>2</sub> emissions from its "business activities" (Scopes 1 and 2) to 50% below 2014 levels by 2030 and to Net Zero by 2040. In addition, MHI aims to reduce the CO<sub>2</sub> emissions contribution from "Scopes 1 and 2 of customer" (Scope 3) by 50% from 2019 levels by 2030 and to achieve Net Zero by 2040. MHI has set 2040 as the year for achieving its Net Zero target because, in order to realize a carbon neutral society by 2050, it is first necessary to supply systems, facilities, and equipment that contribute to low-carbon and decarbonization, which, when introduced and operated by customers, will reduce CO<sub>2</sub> emissions throughout society (Figure-3). In addition, MHI has clearly stated in its "MISSION NET ZERO" that "we believe that as a technology leader, with a proven track record in the field of decarbonization, it is MHI's responsibility to help lead the fight against climate change" and MHI is actively working to "provide energy solutions to enable a carbon neutral world" as its materiality by participating in various external initiatives as shown in Table-2.

	Strategy	Revenu	IC (tr yen)	Businesses
Focus Areas	Contribute to stable supply of			GTCC
(1) Ensure Steady Performance in	energy and national security <ul> <li>Strengthen execution capabilities</li> </ul>		2.6	Nuclear Power
Growing Core Businesses	through concentrated allocation of resources	1.6		Defense



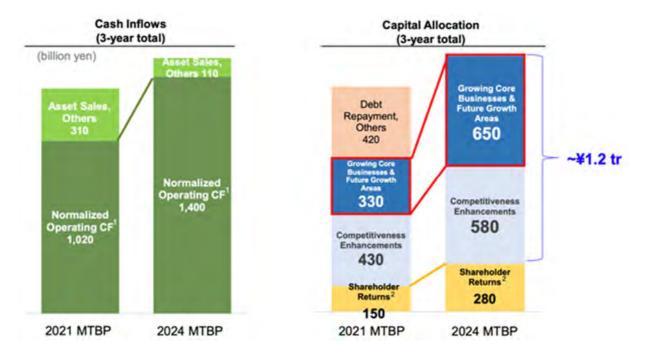
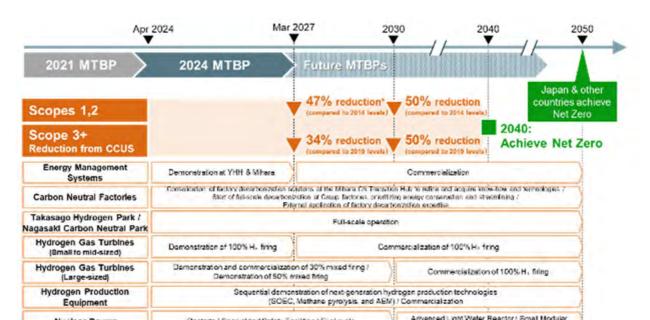
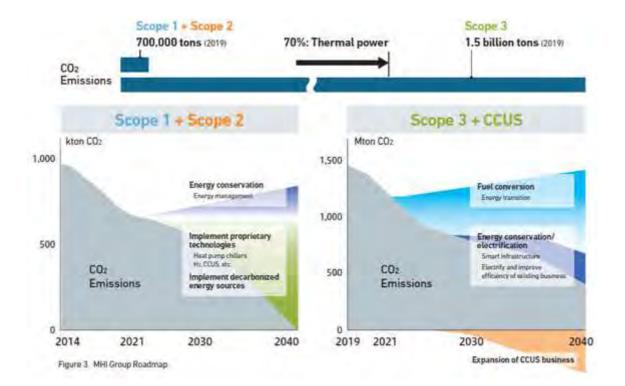


Figure-1: Steady implementation of Growing Core Businesses and promotion of commercialization of Future Growth Areas







Scopes 1 and 2: Aim to achieve Net Zero CO<sub>2</sub> emissions by 2040 by saving energy, introducing own technologies, and introducing decarbonized electricity.

Scope 3: Reduce  $CO_2$  emissions through fuel conversion and energy saving/electrification, though it does not able to achieve Net Zero  $CO_2$  emissions completely because there are certain industrial sectors where it is difficult to reduce  $CO_2$  emissions. For these industries, Carbon dioxide Capture, Utilization, and Storage (CCUS) will be utilized and their contribution to reductions will be taken into account, aiming for Net Zero  $CO_2$ emissions in 2040.

Figure-2: MHI "The roadmap for transitioning to carbon neutrality"

	Japan's Annual GHG hissions Reduction Plan	Example of CO, Reduction Solutions for Existing Facilities	Reduction
5	issions Reduction Fian	Replace coal-fired thermal power plant with natural gas GTCC	-60% to -65%
CONT.		30% mixed hydrogen firing in GTCC/engine	-10%
	Required reduction	100% hydrogen firing in GTCC/engine	-100%
0	from present levels	20% biomass/ammonia mixed firing in coal-fired thermal power plant	-20%
		100% biomass/ammonia finng in coal-fired thermal power plant	-100%
5		Restart and extend operating life of nuclear power plants (replacement of fossil fuel power generation)	-100%
		Hydrogen reduction steelmaking + electric arc furnace	-65%
0		Replace engine forklift with electric forklift	-65%
2014 2019	2030 2050	Replace boiler with heat pump	-65%



# Figure-3: MHI "CO<sub>2</sub> emission reduction in the society by introducing systems, facilities, and equipment to customers toward Net Zero"

External Initiatives		MHI's Initiatives		
United Nations Global Compact	WE SUPPORT	Signed in 2004 and implemented the 10 principles; established the MHI Group Global Code of Conduct in 2015, which outlines the code of conduct to be followed by MHI employees.		
Task Force on Climate- related Financial Disclosures (TCFD)	TCD	Endorsed the TCFD recommendations in March 2019; disclosure in line with TCFD recommendations beginning in FY2020.		
GX League	GX	Plans to participate in voluntary emissions trading (GX-ETS), a pledge-and-review framework for meeting voluntary emission reduction targets.		
Keidanren Initiative for Biodiversity Conservation	Kidanon Inidaire fer Bindivenity	Promotes biodiversity initiatives in line with the updated "Keidanren Declaration for Biodiversity and Guideline."		

#### Table-2: MHI's Participation in External Initiatives and Efforts



#### About the Green/Transition Finance Framework

In advancing MISSION NET ZERO, MHI engaged in dialogue with investors and a wide range of market participants in order to fulfill its role as a supplier of the systems, facilities, and equipment that are essential for low-carbon and decarbonization, which are required for transition activities to realize the World Energy Outlook of the International Energy Agency and the sector-specific roadmaps<sup>\*1\*2\*3\*4\*5\*6</sup> established by the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, and has established the "Mitsubishi Heavy Industries, Ltd. Green/Transition Finance Framework" (hereinafter, the "Framework") in order to procure the necessary funds as green/transition finance in a manner that conforms to internationally established frameworks.

The framework which this Framework specifically refers to is described in (3) of Section II below.

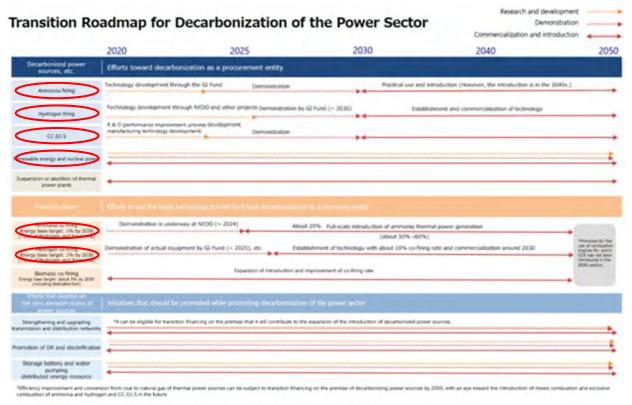
- \*1: Electricity Infrastructure Division, Agency for Natural Resources and Energy: Power Sector Transition Roadmap in February 2022
- \*2: Ministry of Economy, Trade and Industry: Technology Roadmap in the Gas Sector on "Transition Finance," in February 2022
- \*3: Ministry of Economy, Trade and Industry: Technology Roadmap in the Iron and Steel Sector on "Transition Finance" in October 2021
- \*4: Ministry of Economy, Trade and Industry: Technology Roadmap in the Chemical Sector on "Transition Finance" in December 2021
- \*5: Ministry of Land, Infrastructure, Transport and Tourism: Roadmap to Zero Emission from International Shipping in December 2020
- \*6: Ministry of Land, Infrastructure, Transport and Tourism: Roadmap for promoting decarbonization of aviation in May 2024



#### iv. Issuer's Transition Strategy for Decarbonization

#### (1) Strategy by Sector (industry) at the international/national/regional level

Figure-4 shows roadmaps by sector set by the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism. Although these roadmaps do not set clear interim targets, they show specific efforts toward carbon neutrality by 2050. MHI's transition roadmap is well aligned with Figure-4 in terms of quickly providing the systems, facilities, and equipment necessary to realize each of these sectoral roadmaps by 2040, and it is designed to reduce CO<sub>2</sub> emissions in society as a whole through contributions to CO<sub>2</sub> reduction throughout the entire value chain, including various key industrial sectors.



#### Electric Power Field

"Declification" includes indirect exectrification (utilization of hydrogen produced by water electrolysis using electric power derived from renewable energy, etc.)

The mixing ratio is based on heat quantity.



#### Gas Field

#### 3. Technology pathways to Decarbonization |

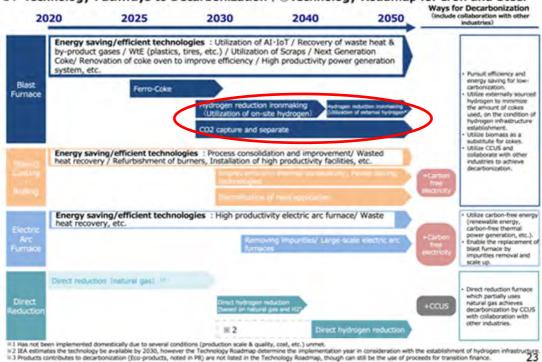
#### I-3 Low-Carbon and Decarbonization Technologies for Carbon Neutrality: Common Technologies

	Technology	Overview	Emission Intensity "	Implementation year *	2 Main Reference *1
Ī	Water electrolysis (Overseas and domestic menufacturing)	<ul> <li>Production of hydrogen by electrolyzing water</li> </ul>	Up to 100% reduction	Late 2020v	green growth strategy     GLFund - Social implementation     Flat, "4     ILA-ETP 2020
	Transportation from overseas (Liquefied hydrogen carriers and transport using liquid hydrocarbons as carriers)	<ul> <li>Liquefied hydrogen carrier and methyloydohexane (MCH) carrier</li> </ul>		Late 2020s	green growth strategy     Gl Fund - Social Implementation     Pan     IEA-ETP 2020
hidde	Local hydrogen network	<ul> <li>Development of domestic hydrogen supply network.</li> </ul>		2030s	· green growth strategy
Ī	Hydrogen combustion equipment, etc.	<ul> <li>Use of hydrogen for industrial furnaces, rogeneration, fuel cells, etc.</li> </ul>	Up to 100% reduction	Before 2030	grineri growth stralegy ILA-ETP 2020
Ŀ	Hydrogen station	<ul> <li>Social implementation of low-cost hydrogen production equipment from city gas</li> </ul>	4	Already installed	green growth strategy
"Ropa"	Biogas	<ul> <li>Utilization of gas derived from biomass fermentation</li> </ul>	Up to 100% reduction	Already installed	green growth strategy     IEA ETP 2020
a state	Ammonia	Ch-site use of ammonia	Up to 100% reduction	Late 2020s	• green.growth.strategy • IEA-ETP 2020
Ĩ	CO2 capture from exhaust gas	<ul> <li>Capture and utilize CO2 emitted from city gas appliances.</li> </ul>	Up to 100% reduction	first half of the 2020s	green.growth.strategy
- cous -	etc.	Capture, stillize, and share CO2 emotted from store plants, power plants, chemical plants, etc.	Up to 100% reduction	2000	Gi Fund - Social Implementation Plan     green growth strategy     IEA-ETP 2020
	DAC	<ul> <li>Direct CO2 capture from the atmosphere</li> </ul>	Up to 100% reduction	20404	gmen.growth.strategy     itA-ETP 2020

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#### Iron and Steel Field

#### 3. Technology Pathways to Decarbonization | 2 Technology Roadmap for Iron and Steel



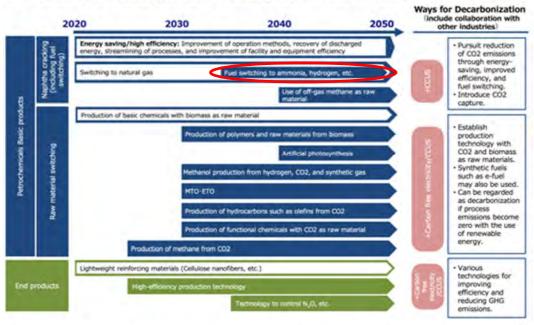
een implemented domestically due to serveral conditions (production scale & quality, cost, etc.) ummet. also the technology be available by 2030, however the Technology Roadmap determine the implementation year in consideration with the establishment of hydrogen infrastructures contributes to decarbonation (Eco-products, noted in PB) are not listed in the Technology Roadmap, though can still be the use of proceeds for transition finance. 23



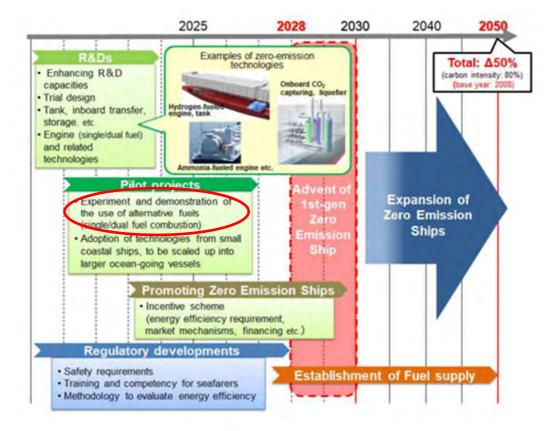
#### Chemical Field

3. Technology Pathways to Decarbonization |

#### 2-1 Technology Roadmap (Naphtha Cracking, Raw Material Switching, End Products)



\*Products contributes to decarbonization (Eco-products, noted in P7) are not listed in the Technology Roadmap, though can still be the use of priceeds for transition finance. 31



#### International Shipping Field



#### Aviation Field (promotion of introducing SAF)



Figure-4: Sector roadmap made by Ministry of Economy, Trade and Industry / Ministry of Land, Infrastructure, Transport and Tourism (Japanese only)

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Outline of Figure-4 is described below.

#### Figure's Caption : Master Schedule (①promotion of introducing SAF)

Sub 5 topics (Left side column)

- Domestic SAF(Sustainable Aviation Fuel) Manufacturing Supply
- Create (SAF) Supply Chain
- Local production and consumption
- International certification of Fuel
- Promotion of understanding

https://www.mlit.go.jp/common/001445923.pdf (Japanese only)



#### (2) Issuer's Transition Strategies

Under "MISSION NET ZERO," MHI has set a long-term goal of Net Zero by 2040 for the company and its entire value chain to achieve the Paris Agreement target of carbon neutrality by 2050, and has set short-term and medium-term goals toward that long-term goal. MHI has positioned its efforts to achieve this goal as a transition strategy.

These targets contribute to (and support) the implementation of carbon neutrality throughout the value chain of MHI's related business as a key initiative outlined in Japan's various decarbonization plans and strategies. As a manufacturer, MHI can make a significant contribution to the reduction of MHI's Scope 3 and its customers' Scopes 1 and 2 through the provision of advanced technologies. Therefore, MHI believes that it can contribute to the realization of transition strategies in various industrial sectors, including the power, gas, iron and steel, chemical, international shipping, and transportation sectors, through the establishment and diffusion of energy transition technologies. In addition, MHI's mission is to help lead the fight against climate change as a proven leader in the field of decarbonization. To this end, MHI has set a long-term goal of achieving Net Zero by 2040, ahead of the Paris Agreement's goal of carbon neutrality by 2050.

Table-3 shows the MHI Transition Targets and Table-4 shows GHG emission results. Table-5 shows the low-carbon and decarbonization initiatives toward carbon neutrality, and Figures-5 to 8 shows the transition strategy outline, specific efforts, timeline, etc. as a roadmap for transitioning to carbon neutrality.

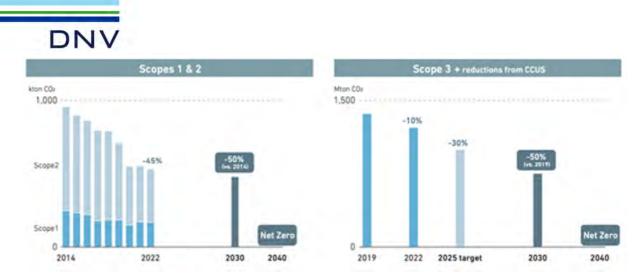
Although the transition strategies of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism do not set clear interim targets (base year, specific quantified reduction targets, etc.), MHI has set short, medium and long-term targets required by the transition strategies in terms of its own activities and contribution to society, as well as specific management strategies and business plans. The plan is set out in the following table.

Target year	Reduce $CO_2$ emissions across MHI Group (Scopes 1 and 2) <sup>*1</sup>	Reduce CO <sub>2</sub> emissions across MHI's value chain (Scope 3 + reductions from CCUS) <sup>*2</sup>
2030	▲50% (compared to 2014)	▲50% (compared to 2019)
2040	Net Zero	Net Zero

Table-3:	MHI	Transition	Targets
10010-01		110101011	

\*1: The calculation standard is based on the GHG Protocol.

\*2: The calculation standard is based on the GHG Protocol. However, reductions achieved by CCUS were also taken into account as MHI's original index.



\* CO<sub>2</sub> emissions from product use (Category 11) account for approximately 99% of Scope 3 emissions, and reduction of these emissions is a major target.

#### Table-4: MHI's GHG emission results (FY2020-2022 / unit: kt-CO2)

Target Scope	FY2020	FY2021	FY2022
Scope1 <sup>*1</sup>	102	118	112
Scope2 <sup>*2</sup>	247	225	214
Scope3 <sup>*3</sup> (Category 11: Use of Sold	720,474 (715,000)	1,578,348 (1,573,000)	1,236,526 (1,231,000)
Products)	(715,000)	(1,5,5,000)	(1,201,000)

\*1: Obtained a third-party assurance. Scope: MHI and domestic group companies (15 companies in FY2020, 12 in FY2021, and 11 in FY2022) Under examination for FY2022

\*2: Obtained a third-party assurance. Calculated based on market standards. Scope: MHI and domestic group companies

(15 companies in FY2020, 12 in FY2021, and 11 in FY2022) Under examination for FY2022 \*3: Figures may change due to a review of the scope and calculation method.

\* Detailed data has been disclosed in the "SUSTAINABILITY DATABOOK" and "ESG DATABOOK."

Initiatives for low- carbonization and decarbonization	Project Category
	Energy Conservation (Energy Management)
Reduction of in-house CO <sub>2</sub> emissions	Implement proprietary technologies (e.g., heat pump chillers and $H_2$ /CCUS)
	Implement decarbonized energy sources
Doduction of CO	Fuel Conversion (Energy Transition)
Reduction of CO <sub>2</sub> emissions throughout the value chain	Energy conservation/electrification (new mobility & logistics, electrify and improve efficiency of existing business) CCUS business expansion

#### Table-5: MHI Low and Decarbonization Initiatives toward Carbon Neutrality



Apr	2024	Mar 2027	203	204	2050
2021 MTBP	2024 MTBP	Future	MTBPs		
Scopes 1,2			duction"	50% reduction	Japan & other countries achieve Net Zero
Scope 3+ Reduction from CCUS			duction	50% reduction	2040: Achieve Net Zero
Energy Nanagement Systems	Demonstration at With & Million	• )(	Conversiellaritor		)
Carbon Neutral Factories	Canadadar of Barbar Arabarratan Adaless at the Mana Ca Tanada Path in adda and again indextee and herbodiges a Start of Adapted descharations of Araba federate and Mana and Path and Path and Path and A Planet and adapted for the Adapted a section of the Adapted and Path and Adapted and Path and Adapted and Path and				
Takasaga Hydrogen Park / Nagasaki Carbon Neutral Park	Fullecis spenton		)		
Hydrogen Gas Turbines jämail in mid-sized)	Comprising of 100% H. ftm	Commercialization of 102% H. firing Commercialization of 102% H. firing		۵ ( B	
Hydrogen Gas Turbines (Large-sized)	Demonstration and comments Demonstration of				of tools. H. Range
Hydrogen Production Equipment	Sequential denorstation of neo-generation hydroget production technologies (SCRC, Valhano pyroyes, and AEV) / Commercialization		• )		
Nuclear Power	Restant, / Socialized Safety Facilities / Fuel cycla Advanced Light Weler Restor / Small Restor / FTGR, Feet Restor / FLaster				
CO <sub>2</sub> Capture	Ren commonweighter / Expend permittige / Diverse, nort acronition technicagos		spand commercial zation		

<sup>1</sup> Altrough SC: entrances in PY2027 are expected to be reduced by only 20% (compared to 2014 levels) due to business expected or duing the 2024 MTRP, MPL Cross area to achieve a 47% reduction (compared to 2014 levels) through energy conservation, site antional, electricitation and fuel conversion.

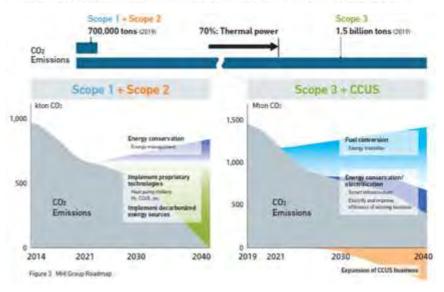
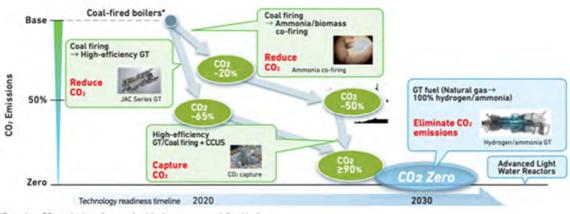


Figure-5 (Figure-2 reposted): MHI "The roadmap for transitioning to carbon neutrality"



\*Based on CO2 emissions from subcritical pressure coal-fired boilers

#### Figure-6: Roadmap to Decarbonizing Existing Infrastructure



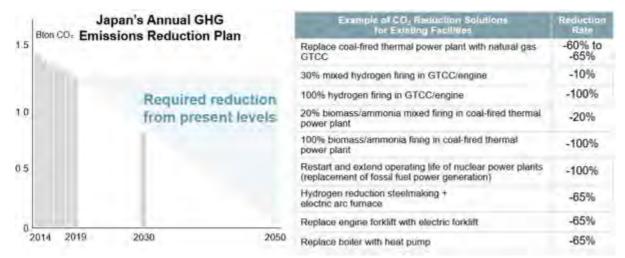


Figure-7 (Figure-3 reposted): MHI "CO<sub>2</sub> emission reduction in the society by introducing systems, facilities, and equipment to customers toward Net Zero"

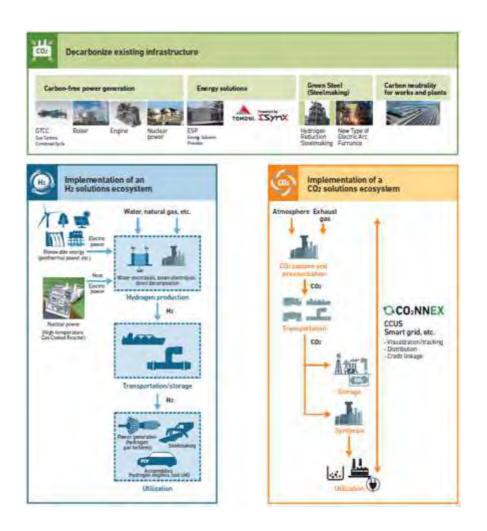


Figure-8: Value chain for realizing carbon neutrality



#### (3) Governance of the Issuer (Sustainability Promotion System)

Figure-9 shows MHI's sustainability promotion system. In order to promote management that takes into account the sustainability, MHI established the "Materiality Council" and the "Sustainability Committee".

MHI recognizes the implementation of the transition strategy as one of the ways to promote sustainability, and as an important management issue, deliberation and decision-making are conducted by a committee that supports rational decision-making by executive officers, and then business execution is realized. The conference body has established an organizational structure to address environmental and social issues associated with the implementation of transition strategies, and to monitor, evaluate, and manage transition efforts. In addition, the "Materiality Council," chaired by the CEO, promotes initiatives to address social and environmental issues, including "resolving energy issues toward decarbonization," one of the materialities. In addition, the "Sustainability Committee," chaired by the CSO (Chief Strategy Officer, Director, the officer in charge of sustainability), promotes initiatives to address ESG issues, including the TCFD.

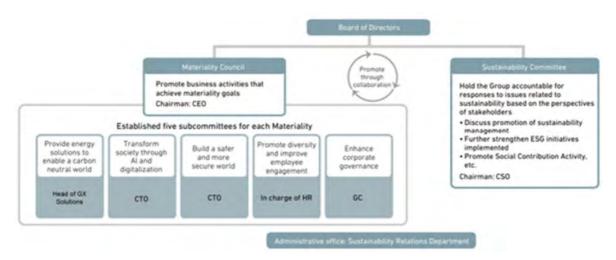


Figure-9: MHI Sustainability Promotion System

Issuer Name: Mitsubishi Heavy Industries, Ltd.

Framework Name: Mitsubishi Heavy Industries, Ltd. Green/Transition Finance Framework

Review Provider's Name: DNV Business Assurance Japan K.K.

Date of Report: 2 August 2024



## **II. Scope and Objectives**

DNV has been commissioned by MHI to provide an eligibility assessment on MHI Green/Transition Finance Framework. Our objective has been to implement an assessment on whether the MHI Green/Transition Finance Framework meets the criteria established on CTFH/CTFBG, GBP/GBGL, and GLP/GLGL and provide a second party opinion on the eligibility of the Framework.

DNV, as an independent external reviewer, has identified no real or perceived conflict of interest associated with the delivery of this second party opinion for MHI.

In this paper, no assurance is provided regarding the financial performance of the Green/Transition Bond to be implemented this time and other bonds or loans to be implemented in the future based on the Framework, the value of any investments, or the long-term environmental benefits of the transaction.

#### (1) Scope of Review<sup>\*</sup>

The review assessed the following elements and confirmed their alignment with the gist of GBP/GLP

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

\* The scope of review is to be applied as a part of the evaluation of the transition finance with use of proceeds. \* The four disclosure elements of CTFH and CTFBG are included in the scope of review.

#### (2) Role(s) of Review Provider

- $\boxtimes$  Second Party Opinion  $\square$  Certification
- □ Verification □ Rating
- $\Box$  Other (*please specify*):



#### (3) Standards/Guidelines to be Applied

No.	Standards/guidelines	Scheme owner
1.	Climate Transition Finance Handbook $(CTFH)^{*1}$	International Capital Market Association (ICMA), 2023
2.	Basic Guidelines on Climate Transition Finance $(CTFBG)^{*1}$	Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment, 2021
3.	Green Bond Principles (GBP) <sup>*2*3*4</sup>	International Capital Market Association (ICMA), 2021
4.	Green Bond Guidelines (GBGL) <sup>*2*3</sup>	Ministry of the Environment, 2022
5.	Green Loan Principles (GLP) <sup>*2*3</sup>	Loan Market Association (LMA) and others, 2023
6.	Green Loan Guidelines (GLGL) <sup>*2*3</sup>	Ministry of the Environment, 2022

\*1 Climate transition: The concept of climate transition focuses principally on the credibility of an issuer's climate change-related commitments and practices (quoted from CTFH and CTFBG).

\*2 It confirms compliance with the four core elements (use of proceeds, process for project evaluation and selection, management of proceeds, and reporting) that must be met when implementing as a bond/loan that meets the four elements of transition and has a specific use of proceeds (quoted from CTFBG).

\*3 Green projects were assessed for eligibility using the referable technical criteria of the Climate Bonds Initiative's Climate Bonds Standard.

\*4 The eligibility assessment was conducted with reference to the "Green Enabling Project Guidance document" published by ICMA in June 2024.



## **II**. Responsibilities of MHI and DNV

MHI has provided the information and data used by DNV during the delivery of this review. DNV's second party opinion represents an independent opinion and is intended to inform MHI and other interested stakeholders in the MHI's Green/Transition Finance as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by MHI. DNV is not responsible for any aspect of the nominated projects and 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 MHI's management and used as a basis for this assessment were not correct or complete.

### **IV.** Basis of DNV's Opinion

To provide as much flexibility for the fundraiser, MHI as possible, we have adapted our MHI Green/Transition Finance assessment methodologies, which incorporates the requirements of the CTFH/CTFBG, GBP/GBGL, and GLP/GLGL, to create an MHI Green/Transition Finance Eligibility Assessment Protocol (hereinafter, the "Protocol"). Please refer to Schedule-2 and 3. The Protocol is applicable to MHI Green/Transition Finance under the CTFH/CTFBG, GBP/GBGL, and GLP/GLGL.

\* Green projects were assessed for eligibility using the Climate Bonds Initiative's Climate Bonds Standard, which are technical criteria that can be referenced.

DNV, as an independent external reviewer, provides second party opinion according to the Protocol.

Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion. The overarching principle behind the Climate Transition Finance of Bond and Loan with a specific use of proceeds as the basis for the opinion are as follows:

"provide an investment opportunity with transparent sustainability credentials"

"enable capital-raising and investment for new and existing projects with environmental benefits"

As per our Protocol, the criteria against which the MHI Green/Transition Finance has been reviewed are grouped into common elements bellow, represented by CTFH/CTFBG, GBP/GBGL, and GLP/GLGL.

#### (1) Four elements of CTFH/CTFBG (disclosure elements)

#### **Principle One: Issuer's climate transition strategy and governance** The financing purpose should be for enabling an issuer's climate change strategy.



#### Principle Two: Business model environmental materiality

The planned climate transition trajectory should be relevant to the environmentallymaterial parts of the fundraiser's business model.

#### Principle Three: Climate transition strategy and targets to be science-based

Fundraiser's climate strategy should reference science-based targets and transition pathways.

#### Principle Four: Implementation transparency

Market communication in connection with the offer of a financing instrument which has the aim of funding the fundraiser's climate transition strategy should also provide transparency of the underlying investment program.

#### (2) Four elements of GBP/GBGL and GLP/GLGL

#### **Principle One: Use of Proceeds**

The Use of Proceeds criteria are guided by the requirement that a fundraiser of a green/transition finance with specific use of proceeds must use the funds raised to bond eligible activities. The eligible activities should produce clear environmental benefits.

#### Principle Two: Process for Project Evaluation and Selection

The Process for Project Evaluation and Selection criteria are guided by the requirements that a fundraiser of a green/transition finance should outline the process it follows when determining eligibility of an investment using the proceeds from transition finance, and outline any impact objectives it will consider.

#### **Principle Three: Management of Proceeds**

The Management of Proceeds criteria are guided by the requirements that a green/transition finance should be tracked within the fundraiser, that separate portfolios should be created when necessary and that a declaration of how unallocated funds will be handled should be made.

#### Principle Four: Reporting

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

\*The GLGL set out requirements for loan-specific elements (internal reviews). This is identified in the green loan requirements check in Schedule-6.



### V. Work Undertaken

Our work constituted a comprehensive review of the available information, based on the understanding that this information was provided to us by the Fundraiser 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:

- i. Pre-funding assessment (Green/Transition Finance Framework and Green/Transition Bond)
  - Creation of MHI-specific Protocol, adapted to the purpose of the MHI Green/Transition Finance, as described above and in Schedule-2 and 3 to this assessment;
  - Assessment of documentary evidence provided by MHI on the MHI Green/Transition Finance and supplemented assessment by a comprehensive desktop research. These checks refer to current assessment best practice and standards methodologies;
  - Discussions with MHI, and review of relevant documentation;
  - Documentation of findings against each element of the criteria.

#### ii. Post-funding assessment (\**not included in this report*)

- Interviews with MHI's managers, and review of the relevant documentation;
- Field research and inspection (if necessary);
- Document creation of post-issuance assessment results.



# VI. Findings and DNV's Opinion

DNV's findings and opinion are as described in (1) and (2) below.

The CTF-1 to 4 in (1) below are the findings and opinions of DNV against the four disclosure elements of the CTFH/CTFBG.

Please see Schedule-2 for details.

The GBP-1 to 4 in (2) below are the findings and opinions of DNV against the requirement of the four common elements of GBP/GBGL and GLP/GLGL.

Please see Schedule-3 for details.

# (1) Findings and opinions of DNV against the four common elements (disclosure elements) of CTFH/CTFBG

#### CTF-1. Issuer's climate transition strategy and governance

- MHI has declared "MISSION NET ZERO" with the aim of becoming carbon neutral by 2040, and has set the steady implementation of growing core businesses (e.g., GTCC and nuclear power) and the promotion of commercialization in future growth areas (e.g., hydrogen, ammonia, and CCUS) as specific measures in the "2024 Medium-Term Business Plan (FY2024-FY2026)." "MISSION NET ZERO" sets a long-term goal of Net Zero by 2040 for the company and its entire value chain to achieve the Paris Agreement target of carbon neutrality by 2050. MHI has set short-term and medium-term goals toward that long-term goal, and disclosed a strategic plan to achieve the above goals as a transition roadmap to carbon neutrality.
- As a proven leader in the field of decarbonization, MHI's mission is to help lead the fight against climate change. To this end, MHI has set Net Zero by 2040 as its long-term goal, ahead of the Paris Agreement target of carbon neutrality by 2050. As a manufacturer, MHI can make a significant contribution to the reduction of its Scope 3 and its customers' Scopes 1 and 2 through the provision of advanced technologies, and through the establishment and diffusion of energy transition technologies, MHI can contribute to the reduction of the emissions of various sectors, including the power, gas, iron and steel, chemical, shipping, and traffic and transportation sectors. MHI believes that it can contribute to the materialization of transition strategies in the industrial sector.
- DNV has reviewed and confirmed that MHI's goals are equivalent to achieving the Paris Agreement goals, in that they are based on science-based, long-term goals quantified by MHI. MHI has set corporate strategies in environmental aspects that are critical to its business model, based on risk and opportunity identification and scenario analysis using TCFD guidance.
- Specifically, MHI's transition strategy is consistent with the International Energy Agency's World Energy Outlook and the roadmaps for transition by sector (power sector, gas sector, iron and steel sector, chemical sector, international shipping sector, and aviation sector) of the Ministry of Economy,



Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, as well as plans or strategies for decarbonization such as the "Basic Energy Plan" and the "Basic Policy for the Realization of GX," and also refers to international frameworks such as EU Taxonomy. It also incorporates an action plan to achieve less than 2°C using TCFD. In addition, if it becomes necessary to revise our efforts to achieve sustained emission reductions in the future, MHI plans to implement them according to the timeline as appropriate.

- MHI recognizes the implementation of transition strategies as one of the ways to promote sustainability, and has established a system and framework to promote the initiatives set forth in "MISSION NET ZERO" at the management level. Specifically, MHI established the "Materiality Council," chaired by the CEO, which meets twice a year and reports on its activities to the Board of Directors on a regular basis. Similarly, the "Sustainability Committee", chaired by the CSO, meets twice a year and reports on its activities to the Board of Directors at least once a year.
- MHI is committed to "developing business activities that take into its diverse range of our stakeholders into consideration and return profits to all stakeholders in optimum fashion, while at the same time providing excellent products and technologies to realize a 'sustainable society' and a secure future for people and the planet." MHI also states to aim to reach Net Zero ten years earlier than 2050, taking into account the lead time required for products and technologies to be broadly applied in society, and furthermore, MHI states in the "2024 Medium-Term Business Plan" to aim to "become a hub for ecosystems to change society." DNV judges that these goals and ideas contribute to the aim of just transition, which is presented as "ensure that the substantial benefits of a green economy transition are shared widely." MHI's approach to sustainability promotion based on these concepts, MHI aims to address materiality through its business activities and contribute broadly to the achievement of the SDGs, the sustainable development goals set forth by the United Nations. Of these, the materiality to which Green/Transition Finance is primarily related is "provide energy solutions to enable a carbon neutral world."
- Based on the evaluation of the Framework, "MISSION NET ZERO," and the Implementation Plan, DNV has confirmed that they are well aligned with MHI's Transition Strategy. Through the evaluation, DNV judges that the implementation plan based on the Transition Strategy is credible, ambitious, and highly feasible.

#### CTF-2. Business model environmental materiality

- MHI's Transition efforts include not only emission reductions from its own business activities (Scopes 1 and 2), but also Scope 3 and activities that contribute to reductions at other companies. CO<sub>2</sub> emission results (Scopes 1-3) have been disclosed for the past three-year period. This will contribute to the implementation of supply-side and demand-side carbon neutrality as an important initiative presented in various plans and strategies for



decarbonization in Japan. In other words, as a company that manufactures and sells key systems, facilities, and equipment for energy, steel, and other high  $CO_2$  emission business, MHI's Transition efforts directly support the transition of society as a whole, including its own.

Table-4 (reposted): MHI's GHG emission results (FY2020-2022 / unit: kt-CO<sub>2</sub>)

Target Scope	FY2020	FY2021	FY2022
Scope1 <sup>*1</sup>	102	118	112
Scope2 <sup>*2</sup>	247	225	214
Scope3 <sup>*3</sup> (Category 11: Use of	720,474 (715,000)	1,578,348 (1,573,000)	1,236,526 (1,231,000)
Sold Products)	(715,000)	(1,575,000)	(1,231,000)

\*1: Obtained a third-party assurance. Scope: MHI and domestic group(15 companies in FY2020, 12 in FY2021, and 11 in FY2022) Under examination for FY2022

\*2: Obtained a third-party assurance. Calculated based on market standards. Scope: MHI and domestic group companies

(15 companies in FY2020, 12 in FY2021, and 11 in FY2022) Under examination for FY2022

\*3: Figures may change due to a review of the scope and calculation method. \* Detailed data has been disclosed in the "SUSTAINABILITY DATABOOK" and "ESG DATABOOK."

- MHI's Transition Roadmap is well aligned with the International Energy Agency's World Energy Outlook and the roadmaps for transition by sector (power sector, gas sector, iron and steel sector, chemical sector, international shipping sector, and aviation sector) of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, as well as plans or strategies for decarbonization such as the "Basic Energy Plan" and the "Basic Policy for the Realization of GX," and also refers to international frameworks such as EU Taxonomy. In other words, the project is designed to enable these sectors to quickly provide the systems, facilities, and equipment that are essential to make the transition a reality. Their specific implementation plans and targets are set and quantified to allow for further improvement in the best possible solution currently available.
- DNV has confirmed that MHI's plan to implement its transition strategy is closely linked to the activities of MHI's core business and to activities that contribute to the reduction of CO<sub>2</sub> throughout society, thus contributing to the environmental aspects of society as a whole and helping to drive MHI's business. MHI's planned transition strategy and transition pathway will be linked to materiality, for which MHI utilizes the GRI Standards<sup>\*1</sup>, ISO 26000, SASB Standards, TCFD, etc., and will contribute to significant environmental benefits (impact) from qualitative and quantitative perspectives.



\*1: Global Reporting Initiative (an international standard providing ESG-related reporting, management and analysis tools)

#### CTF-3. Climate transition strategy and targets to be science-based

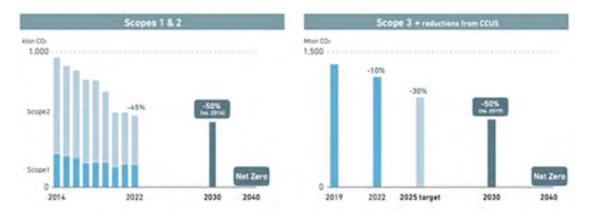
- MHI has established a transition plan consistent with the science-based Paris Agreement and a transition trajectory consistent with the International Energy Agency's World Energy Outlook and the roadmaps of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism.
- DNV confirmed that MHI's transition strategy is quantified in terms of emissions intensity and absolute values based on a consistent measurement methodology based on prescribed assumptions. Transition targets are voluntarily set based on efforts to utilize the TCFD and other measures to reduce CO<sub>2</sub> emissions in a sustainable manner, and they are consistent with the benchmark International Energy Agency's World Energy Outlook and the policies of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism.

Target year	Reduce CO <sub>2</sub> emissions across MHI	Reduce CO <sub>2</sub> emissions across MHI's
	Group (Scopes 1 and 2) <sup>*1</sup>	value chain (Scope 3 + reductions
		from CCUS) <sup>*2</sup>
2030	▲50% (compared to 2014)	▲50% (compared to 2019)
2040	Net Zero	Net Zero

Table-3	(reposted)	): MHI	Transition	Targets
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\*1: The calculation standard is based on the GHG Protocol.

\*2: The calculation standard is based on the GHG Protocol. However, reductions achieved by CCUS were also taken into account as MHI's original index.



\*  $CO_2$  emissions from product use (Category 11) account for approximately 99% of Scope 3 emissions, and reduction of these emissions is a major target.

- MHI's CO<sub>2</sub> emission reductions include not only emission reductions from its own business activities (Scopes 1 and 2), but also Scope 3 and activities that contribute to reductions at other companies. This contributes to the implementation of supply-side and demand-side carbon neutrality as an



important initiative indicated in various plans and strategies for decarbonization in Japan. In other words, as a company that manufactures and sells key systems, facilities, and equipment for energy, steel, and other  $CO_2$  many emitting business, MHI's Transition efforts directly support the transition of society as a whole, including its own. In 2030, the mid-point of the 2040 carbon neutrality target, MHI has set a target to reduce the absolute value of Scopes 1 and 2 by approximately 480,000 tonnes (50% reduction compared to FY2014) and of Scope 3 by approximately 680 million tonnes (50% reduction compared to FY2019). For Scope 3, it is indicated that MHI aims to achieve carbon neutrality by 2040 by providing products, technologies, and services related to  $CO_2$  capture, transport, storage, and utilization to industries that have difficulty in reducing emissions, and by taking into account the emission reductions.

#### CTF-4. Implementation transparency

- DNV has confirmed that MHI's investment and deployment plans related to the Transition Strategy include agreements for future investments and expenditures. Specifically, under the "2024 Medium-Term Business Plan," a cumulative total of 650 billion yen is planned to be invested in Growing Core Businesses and Future Growth Areas over three years, almost double the amount of the "2021 Medium-Term Business Plan," with a total of 2 trillion yen planned from FY2021 to 2030, which encompasses projects to be implemented under green/transition finance.
- In its information disclosure in line with MHI's TCFD recommendations, DNV has assessed the financial impact of applying the carbon price projections in the IEA's Net Zero Emissions by 2050 to the Scopes 1 and 2 forward-looking values in the absence of CO<sub>2</sub> emission reduction measures as "large," and has confirmed that MHI is promoting carbon neutrality to mitigate this impact. In addition, as MHI participates in the GX League and plans to participate in voluntary emissions trading (GX-ETS), DNV judges that MHI is expected to better understand and address the impact of carbon price and taxation in the future.
- DNV has confirmed that the overall investment plan (investment amount) for the future is a plan where the investments required to implement the transition strategy will be executed according to the appropriate timeline in accordance with the internal management structure and processes, taking into account CTF-1 to 3.
- (2) Findings and opinions of DNV against the four common elements of GBP/GBGL and GLP/GLGL



\* The four elements are used as criteria for transition finance to specify the use of proceeds, and some green bonds/loans below can be read as transition finance (bonds/loans).

#### GBP/GLP-1. Use of Proceeds

MHI defines the eligibility criteria for the use of proceeds as green projects that the projects meet the requirements of GBP/GBGL and GLP/GLGL, and as transition projects that the projects meet the requirements of the Transition Strategy and related frameworks (CTFH/CTFBG).

Green/Transition Finance nominated eligible business/projects and eligibility criteria are listed in Tables-6 and 7, respectively.

Table-8 also shows the details of four projects that are newly added from this time.

The eligible business/projects, including the four newly added projects, and eligibility criteria defined in the Framework, correspond/conform to the "Green Enabling Project Guidance document" published by ICMA in June 2024 as the relevant document for the GBP.

Eligible businesses and/or projects	Eligibility Criteria
Renewable Energy	<ul> <li>Wind power (wind power plants)</li> <li>Geothermal power (geothermal power plants)</li> <li>Solar power</li> </ul>
Clean Energy	<ul> <li>Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen firing)</li> <li>Ammonia gas turbine (ammonia power generation businesses and/or projects for 100% ammonia firing)</li> <li>Steam Power (conversion to 100% ammonia firing)</li> <li>Gas engine for power generation (100% hydrogen firing)</li> <li>Hydrogen production (green)</li> <li>Ammonia production (green)</li> <li>Biogas production</li> </ul>

#### Table-6: Green Projects<sup>\*1</sup>

\*1: Projects that have confirmed for eligibility as green projects can be incorporated in future green bond issuance. Green projects are also permitted within the CTFBG to be incorporated as part of a transition bond issuance.

Table-7: Transition Projects<sup>\*2</sup>



Eligible businesses and/or projects	Eligibility Criteria
Decarbonize existing infrastructure	<ul> <li>LNG-fueled high-efficiency gas turbine</li> <li>Steam Power (conversion to ammonia co-firing)</li> <li>Nuclear Energy Systems</li> <li>Gas engine for power generation (hydrogen co-firing)</li> <li>Metals machinery (hydrogen-reduced ironmaking, etc.)</li> <li>Material Handing (high efficiency and fuel cell powered)</li> <li>Hydrogen gas turbine (co-firing)</li> <li>Ammonia gas turbine (co-firing)</li> <li>Synthetic fuel such as Sustainable Aviation Fuel (SAF)</li> </ul>
Build a hydrogen solutions	<ul> <li>Hydrogen compressors (for hydrogen production, transport and</li></ul>
ecosystem	storage, etc.) <li>Hydrogen production (blue or turquoise, etc.)</li> <li>Ammonia production (blue or turquoise, etc.)</li>
Build a CO <sub>2</sub> solutions	• CO <sub>2</sub> capture and storage
ecosystem	• CO <sub>2</sub> transport (liquefied CO <sub>2</sub> carries, etc.)

\*2 Some projects classified as transition projects at this time may be green projects if they meet green criteria by applying future technological innovations (e.g., application or use of green fuels/production processes, continued use of nuclear power (or energy) as necessary to achieve carbon neutrality, achievement of performance to meet CO<sub>2</sub> emission standards as a green project, etc.).



# Table-8: Green/Transition projects Overview of the four new projects

Eligible		Green Project Overview (representative project)	
businesses and/or projects	Eligibility Criteria	(Results of validation against the surrounding environment and social impacts)	
Renewable Energy	Solar power	<b>Solar power</b> : DNV has confirmed that eligible projects will be selected with reference to the Solar Sector Criteria Rev. 2.3 issued by the Climate Bonds Initiative (CBI), and will be either sole solar power projects (e.g., in North Carolina, the U.S.) with no fossil fuel-based power generation equipment (back-up power source) attached or, in the future, projects that meet the solar power-related sector standards if they include a power generation equipment (back-up power source).	
		In any of the above cases, MHI will confirm that the project does not conflict with the Exclusion Criteria or DNSH <sup>*1</sup> criteria set out in the Framework. *1 DNSH: Do No Significant Harm (for environmental purposes)	
Clean Energy	Biogas production	Development of a highly efficient biomass collection and recycling system: DNV has confirmed that eligible projects will meet the requirements of the Waste Management Criteria issued by the Climate Bonds Initiative (CBI) (waste storage/segregation, separation/composting/anaerobic digestion/energy from waste).	
		As a specific example, the project is expected to contribute to the realization of a recycle-based society by facilitating the highly efficient and easy separation and collection of biomass from unsorted food waste, municipal waste including paper waste, agricultural residues (non-harvested parts), etc. mixed with plastics and other materials that are difficult to separate and have to be incinerated, and utilization of biomass as raw material for methane fermentation that contributes to increasing biogas generation, and by applying technologies that enable hygienic storage and transport and wide-area intensive treatment.	
		MHI will confirm that the project does not conflict with the Exclusion Criteria or DNSH criteria set out in the Framework.	

Eligible businesses and/or projects	Eligibility Criteria	Transition Project Overview (representative project) (Results of validation against the surrounding environment and social impacts)
Decarbonize existing infrastructure	Nuclear Energy Systems	<b>Nuclear power</b> : DNV has confirmed that eligible projects will be one or more of the following activities, as indicated in the classification of nuclear power projects (section) of EU

DNV	
	Taxonomy. The reference to EU Taxonomy is based on the EU Taxonomy Section 2.1.6: "locally relevant standards may be applied in countries outside the EU" and the evaluation will be conducted by converting it to the New Regulatory Standards (Nuclear Regulatory Authority), Radioactive Waste standards, Laws and Regulations , etc., as well as the Japanese policy and plans for nuclear energy.
	"4.26: Pre-commercial stages of advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle"
	"4.27: Construction and safe operation of new nuclear power plants, for the generation of electricity or heat, including for hydrogen production, using best-available technologies"
	"4.28: Electricity generation from nuclear energy in existing installations" (enabling activity: economic activities that enable other economic activities to contribute to one and more environmental objectives)
	The Following projects are specific examples.
	- restarting existing nuclear plants
	- Specified severe accident management facilities
	- Promoting the establishment of fuel cycles
	- Developing and commercializing Advanced light water reactor "SRZ-1200" and small light-water reactors
	- Promoting the development of high temperature gas-cooled reactors, fast reactors, and fusion reactors, etc.
	Furthermore, MHI will confirm that above projects do not conflict with the Exclusion Criteria or DNSH criteria set out in the Framework.
Synthetic fuel such as Sustainable Aviation Fuel (SAF)	<b>Synthetic fuel production</b> : Eligible projects are to produce synthetic liquid fuels as a substitute for fossil fuels such as jet fuel by means of the PtL (Power-to-Liquid) process, using green hydrogen etc. produced in compliance with the requirements of EU Taxonomy's Hydrogen Production Eligibility Checklist etc. and CO <sub>2</sub> collected through CCS etc. as feedstock.
	MHI will confirm that the project does not conflict with the Exclusion Criteria or DNSH criteria set out in the Framework.



DNV has confirmed that MHI plans to use all proceeds, excluding expenses, from the entire amount raised through green/transition finance as new investment and refinancing for research and development, business development, operations, and other related expenditures for green/transition eligible projects that are consistent with MHI's investment plan to implement its transition strategy.

These projects correspond/conform to the "Green Enabling Project Guidance document" published by ICMA in June 2024 as the relevant document for the GBP.

These are representative projects that contribute to business transformation as exemplified by CTFH/CTFBG, GBP/GBGL, and GLP/GLGL, as well as projects that contribute to the achievement of the roadmaps of Ministry of Economy, Trade and Industry, Ministry of Land, Infrastructure, Transport and Tourism. These projects have been evaluated for their clear environmental benefits on transition strategies and are expected to contribute to the SDGs. These processes are consistent with GBP/GLP-1.

### GBP/GLP-2. Process for Project Evaluation and Selection

MHI will ensure that green/transition projects, in addition to contributing to the achievement of the transition strategy, have determined environmental and social risk reduction efforts in advance in the Framework and do not conflict with the Exclusion Criteria (see below). Specifically, after the Finance Department confirms that the projects selected by the business divisions meet the eligibility criteria, the Chief Financial Officer makes the final decision.

These processes have been established as internal documents of MHI, and DNV has confirmed that they are planned to be implemented in accordance with the appropriate processes.

DNV also confirmed that the green/transition projects implemented by MHI are consistent with the Issuer's management and environmental policies, as well as with the transition strategy, goals, and pathways.

<Exclusion Criteria>

- Transactions that do not meet the policies and standards in the sustainability framework
  - > CSR Action Guidelines
  - > MHI Group Global Code of Conduct
  - > MHI Group Human Rights Policy
  - > Basic Policy on Environmental Matters and Action Guidelines
  - Privacy Policy
  - > Policy of Safety and Health
  - Procurement Policy
  - MHI Group Supply Chain CSR Promotion Guidelines Basic Policy Concerning Conflict Minerals
  - > MHI Group's Declaration on Biodiversity



### **Evaluation and Selection**

- ☑ Conforms to the issuer's achievement of environmental contribution goals
- The project is eligible for use of proceeds by green bond and transparency is ensured.
- The project is evaluated and selected based on the published standard summary.
- Documented process to determine that projects fit within defined categories
  - Documented process to identify and manage potential ESG risks associated with the project Other (*please specify*):

### Information on Responsibilities and Accountability

- ☑ Evaluation/selection criteria subject to
   ☑ In-house assessment external advice or verification
- $\Box$  Other (*please specify*):

### **GBP/GLP-3.** Management of Proceeds

The proceeds will be deposited into a common account at MHI, after which the Finance Department will manage the allocation using an internal management system.

X

This internal control system will be trackable over the outstanding period and will be reviewed periodically (at least annually) by the Finance Department for allocation status. Documented evidence related to the management of proceeds will be kept in accordance with the Document Retention Period Criteria Table.

All proceeds (net proceeds) will be allocated to green/transition projects within three years of fundraising, given that these projects involve long-term projects. If the amount is significantly in excess of that, it will be stated in advance in the Amended Shelf Registration Statement and other documents pertaining to the issuance of the bonds, along with the reasons for such excess. In the case of refinancing of existing expenditures, the project is expected to be financed within about three years from the time of the financing, and the project will be eligible if it is determined to be eligible as a green/transition project at the time of the allocation, based on the process set forth in GBP/GLP-2. Pending the allocation to eligible businesses and/or projects, the amount of unallocated proceeds will be held in cash or cash equivalents.

In the future, if green/transition finance is implemented under the Framework, it will be disclosed in statutory documents etc. prior to implementation.

### Tracking of Proceeds:

- Some or all of the proceeds by green bonds that are planned to be allocated are systematically distinguished or tracked by the issuer.
- Disclosure of intended types of temporary investment instruments for unallocated proceeds
- Other (*please specify*): Unallocated proceeds are managed in cash or cash equivalents.

### Additional Disclosure:



- □ Allocations to future investments only
- Allocation to individual disbursements
- Disclosure of portfolio balance of unallocated proceeds
- Allocations to both existing and future investments
- □ Allocation to a portfolio of disbursements
- $\Box$  Other (*please specify*):

### GBP/GLP-4. Reporting

DNV has confirmed that the Issuer will provide reporting (once a year) on the allocation status of proceeds until the proceeds are fully allocated. DNV has also confirmed that the Issuer will report annually on an outline and the environmental benefits of the projects eligible for allocation, at least until the proceeds are fully allocated.

DNV has confirmed that if any significant events occur, such as major changes in the allocation plan or actual, MHI will disclose such information in a timely manner.

Reporting will be disclosed on the website.

### <Allocation status>

- Allocation status to eligible projects
- Amount or share of allocated and unallocated proceeds, allocation schedule, and the management method
- Ratio of new financing to refinancing

### <Environmental benefits>

Plans to disclose the outline (including progress of research and development, operation, etc.) of the project and the expected environmental benefits (e.g., t- $CO_2$ /year (calculate reduction effect based on the number of equipment installed, number of equipment sold, intensity (g- $CO_2$ /kWh), etc.)), within the scope of confidentiality and to the extent practicable, and taking into account the characteristics of the project

• Any or more of the reporting contents listed in Tables-10 and 11 to the extent practicable

Eligible businesses and/or projects	Eligibility Criteria	Reporting Contents
Renewable Energy	<ul> <li>Wind power (wind power plants)</li> <li>Geothermal power (geothermal power plants)</li> <li>Solar power</li> </ul>	<ul> <li>Information on their progress in R&amp;D (such as the outline of projects participated in)</li> <li>Annual power generation of renewable energy (MWh)</li> <li>Annual CO<sub>2</sub> reduction (t-CO<sub>2</sub>)*</li> </ul>
Clean Energy	<ul> <li>Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen</li> </ul>	<ul> <li>Information on their progress in R&amp;D (such as the outline of projects participated in)</li> </ul>

### Table-10: Green Projects



<ul><li>firing)</li><li>Ammonia gas turbine (ammonia power generation businesses</li></ul>	<ul> <li>Annual CO<sub>2</sub> reduction (t-CO<sub>2</sub>) by products sold (including implementation within MHI)<sup>*</sup></li> </ul>
<ul><li>and/or projects for 100% ammonia firing)</li><li>Steam Power (conversion to 100% ammonia firing)</li></ul>	<ul> <li>Amount of hydrogen produced (tons)</li> <li>Amount of ammonia produced (tons)</li> </ul>
<ul> <li>Gas engine for power generation (100% hydrogen firing)</li> <li>Hydrogen production (green)</li> <li>Ammonia production (green)</li> </ul>	Amount of biogas produced (tons)
<ul> <li>Biogas production</li> </ul>	

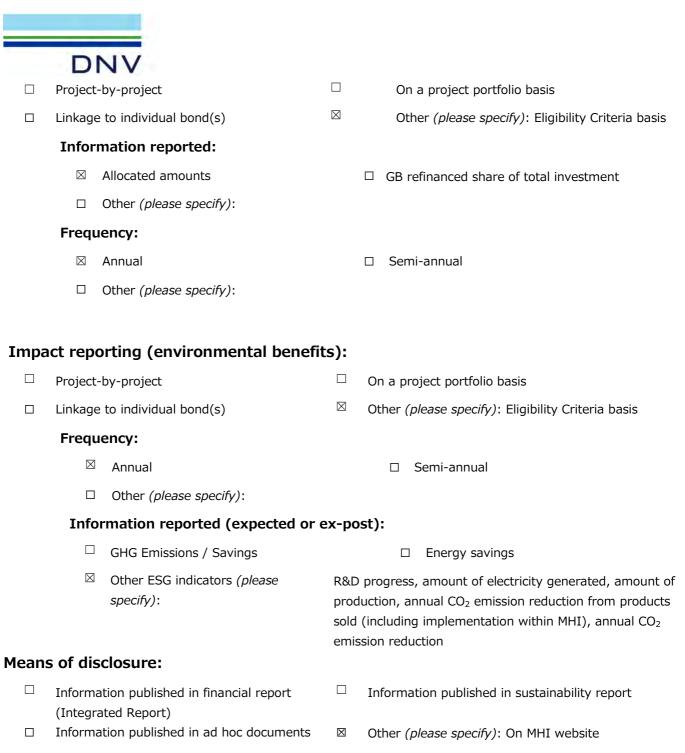
\*: Calculated by using average emission factors and operating rates published by third-party organizations

	Table-11:	Transition	Proiects
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Eligible businesses and/or projects	Eligibility Criteria	Reporting Contents
Decarbonize existing infrastructure	<ul> <li>LNG-fueled high-efficiency gas turbine</li> <li>Steam Power (conversion to ammonia co-firing)</li> <li>Nuclear Energy Systems</li> <li>Gas engine for power generation (hydrogen co-firing)</li> <li>Metals machinery (hydrogen- reduced ironmaking, etc.)</li> <li>Material Handing (high efficiency and fuel cell powered)</li> <li>Hydrogen gas turbine (co-firing)</li> <li>Ammonia gas turbine (co-firing)</li> <li>Synthetic fuel such as Sustainable Aviation Fuel (SAF)</li> </ul>	<ul> <li>Information on their progress in R&amp;D (such as the outline of projects participated in)</li> <li>Annual CO<sub>2</sub> reduction (t-CO<sub>2</sub>) by products sold (including implementation within MHI)*</li> <li>Hydrogen co-firing ratio(%)</li> <li>Ammonia co-firing ratio (%)</li> <li>Amount of Synthetic fuel such as Sustainable Aviation Fuel (SAF) produced(kL)</li> </ul>
Build a hydrogen solutions ecosystem	<ul> <li>Hydrogen compressors (for hydrogen production, transport and storage, etc.)</li> <li>Hydrogen production (blue or turquoise, etc.)</li> <li>Ammonia production (blue or turquoise, etc.)</li> </ul>	<ul> <li>Information on their progress in R&amp;D (such as the outline of projects participated in)</li> <li>Annual CO<sub>2</sub> reduction (t-CO<sub>2</sub>) by products sold (including implementation within MHI)*</li> <li>Amount of hydrogen produced (tons)</li> <li>Amount of ammonia produced (tons)</li> </ul>
Build a CO <sub>2</sub> solutions ecosystem	<ul> <li>CO<sub>2</sub> capture and storage</li> <li>CO<sub>2</sub> transport (liquefied CO<sub>2</sub> carries, etc.)</li> </ul>	<ul> <li>Information on their progress in R&amp;D (such as the outline of projects participated in)</li> <li>Annual CO<sub>2</sub> reduction (t-CO<sub>2</sub>) by products sold (including implementation within MHI)*</li> </ul>

\*: Calculated by using average emission factors and operating rates published by third-party organizations

## Use of Proceeds reporting:



□ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):



## **VI.** Assessment Conclusion

On the basis of the information provided by MHI and the work undertaken, it is DNV's opinion that the MHI Green/Transition Finance Framework meets the criteria established in the Protocol, and that it is aligned with the following stated definition or purpose of climate transition finance for bonds and loans that specify the use of proceeds within the CTFH/CTFBG, GBP/GBGL, and GLP/GLGL.

"provide an investment opportunity with transparent sustainability credentials"

"enable capital-raising and investment for new and existing projects with environmental benefits"

DNV Business Assurance Japan K.K.

2 August 2024

Jun Chokai Technical Reviewer DNV Business Assurance Japan K.K.

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#### About DNV

Driven by our purpose of safeguarding life, property and the environment, DNV enables organisations to advance the safety and sustainability of their business. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight.

With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.

#### Disclaimer

Responsibilities of the Management of the Issuer and the Second-Party Opinion Providers, DNV: The management of Issuer 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 the Issuer management and other interested stakeholders in the Bond as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by the Issuer. 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 the Issuer's management and used as a basis for this assessment were not correct or complete



## Schedule-1 MHI Green/Transition Finance Nominated Eligible Projects

The projects listed in the table are nominated projects that have been assessed for eligibility at the time of pre-implementation eligibility assessment (as of August 2024). In the future, green/transition bonds or loans issued under the MHI Green/Transition Finance Framework will be selected from one or more of the green/transition nominated eligible projects (Eligibility Criteria) and reported in the pre-financing or post-financing reports. If additional transition projects are included, eligibility will be assessed in advance by MHI in accordance with the MHI Green/Transition Finance Framework and, if necessary, DNV will evaluate them in a timely manner.

### **Green Projects**<sup>\*1</sup>

Nominated eligible businesses and/or projects	Eligibility Criteria (Green Project Overview)	Alignment with SDGs
Renewable Energy	<ul> <li>Wind power (wind power plants)</li> <li>Geothermal power (geothermal power plants)</li> <li>Solar power</li> </ul>	<ol> <li>7. AFFORDABLE AND CLEAN ENERGY</li> <li>9. INDUSTRY, INNOVATION AND INFRASTRUCTURE</li> </ol>
Clean Energy	<ul> <li>Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen firing)</li> <li>Ammonia gas turbine (ammonia power generation businesses and/or projects for 100% ammonia firing)</li> <li>Steam Power (conversion to 100% ammonia firing)</li> <li>Gas engine for power generation (100% hydrogen firing)</li> <li>Hydrogen production (green)</li> <li>Ammonia production (green)</li> <li>Biogas production</li> </ul>	12. RESPONSIBLE CONSUMPTION AND PRODUCTION 13. CLIMATE ACTION

\*1: Projects that have confirmed for eligibility as green projects can be incorporated in future green bond issuance. Green projects are also permitted within the CTFBG to be incorporated as part of a transition bond issuance.



### Transition Projects<sup>\*2</sup>

Nominated eligible businesses and/or projects	Eligibility Criteria (Transition Project Overview)	Alignment with SDGs
Decarbonize existing infrastructure	<ul> <li>LNG-fueled high-efficiency gas turbine</li> <li>Steam Power (conversion to ammonia co-firing)</li> <li>Nuclear Energy Systems</li> <li>Gas engine for power generation (hydrogen co-firing)</li> <li>Metals machinery (hydrogen-reduced ironmaking, etc.)</li> <li>Material Handing (high efficiency and fuel cell powered)</li> <li>Hydrogen gas turbine (co-firing)</li> <li>Ammonia gas turbine (co-firing)</li> <li>Synthetic fuel such as Sustainable Aviation Fuel (SAF)</li> </ul>	<ul> <li>7. AFFORDABLE AND CLEAN ENERGY</li> <li>9. INDUSTRY, INNOVATION AND INFRASTRUCTURE</li> <li>12. RESPONSIBLE CONSUMPTION AND PRODUCTION</li> <li>13. CLIMATE ACTION</li> <li>14. 27000</li> <li>13. CLIMATE ACTION</li> </ul>
Build a hydrogen solutions ecosystem	<ul> <li>Hydrogen compressors (for hydrogen production, transport and storage, etc.)</li> <li>Hydrogen production (blue or turquoise, etc.)</li> <li>Ammonia production (blue or turquoise, etc.)</li> </ul>	
Build a CO <sub>2</sub> solutions ecosystem	<ul> <li>CO<sub>2</sub> capture and storage</li> <li>CO<sub>2</sub> transport (liquefied CO<sub>2</sub> carries, etc.)</li> </ul>	

\*2: Some projects classified as transition projects at this time may be green projects if they meet green criteria by applying future technological innovations (e.g., application or use of green fuels/production processes, continued use of nuclear power (or energy) as necessary to achieve carbon neutrality, achievement of performance to meet CO<sub>2</sub> emission standards as a green project, etc.).



# Schedule-2 Climate Transition Finance Eligibility Assessment Protocol

The following checklists (1-4) are a DNV assessment protocol created for MHI Green/Transition Finance Framework and Transition Bond Eligibility Assessment, based on the disclosure requirements of the CTFH/CTFBG.

The "Confirmed documents" in the Work Undertaken include public or private documents (internal documents of the issuer or borrower) etc., and are provided by MHI as evidence of eligibility judgment for DNV.

\* Please replace "Issuer" and "Investor" to "Borrower/Fundraiser" and "Lender" in the context in the following requirements.

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1	Issuer's Climate Transition Strategy and Governance	<ul> <li>The green, sustainability or sustainability- linked financing should be directed toward enabling an issuer's GHG emissions reduction strategy in alignment with the goals of the Paris Agreement.</li> <li><i>Recommended information and indicators:</i> <ul> <li>address the materiality of climate- related eligible projects and/or KPI(s) on the overall emissions profile of an issuer.</li> <li>a long-term, science-based target to align with the goals of the Paris Agreement;</li> <li>relevant and credible interim science- based targets in the short and medium-term on the trajectory towards the long-term goal, in line</li> </ul> </li> </ul>	<ul> <li>Confirmed documents</li> <li>Framework</li> <li>MISSION NET ZERO</li> <li>2024 Medium-Term Business Plan</li> <li>International Energy Agency World Energy Outlook</li> <li>Ministry of Economy, Trade and Industry Roadmap (Power, Gas, Iron and Steel, Chemical)</li> <li>Ministry of Land, Infrastructure, Transport and Tourism Roadmap (International Shipping, Aviation)</li> <li>MHI Group Integrated Report 2023</li> <li>SUSTAINABILITY DATABOOK 2023</li> </ul>	MHI has established the Framework and has also introduced various plans and initiatives to manage and enhance the organization's environmental sustainability and related performance against MHI's broader environmental strategy. DNV has reviewed and confirmed that MHI's goals are equivalent to achieving the goals of the Paris Agreement, in that they are based on science-based long-term goals quantified by MHI. MHI has set corporate strategies in environmental aspects that are critical to its business model, based on risk and opportunity identification and scenario analysis using TCFD guidance. MHI has declared "MISSION NET ZERO" with the aim of becoming carbon neutral by 2040, and the "2024 Medium Term Business Plan" states contribution to decarbonization, including the promotion of strategies based on market needs to further increase the global market share of GTCC as part of the steady implementation of Growing Core Businesses, and the steady implementation of initiatives in each area to expand business in line with the national policy of "promoting the use of nuclear energy." Similarly, to promote the commercialization of Future Growth Areas,



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<ul> <li>with the relevant regional, sector, or international climate change scenarios;</li> <li>disclosure on an issuer's transition plan or climate transition strategy. This should include specific itemization of the main levers towards GHG emissions reduction, such as a detailed capital expenditure (CapEx) plan and relevant technological implications (i.e., amounts to be spent, what carbon cost is considered for implementing such CapEx program, operational impacts, regulatory considerations, etc.);</li> <li>clear oversight and governance of an issuer's climate transition strategy, including management/board level accountability; and</li> <li>evidence of a broader sustainability strategy to mitigate relevant environmental and social externalities, including 'just transition' considerations where appropriate, and contributions to the UN</li> </ul>	Interviews with stakeholders	MHI has newly established the GX Segment to promote partnering to build a value chain for hydrogen and ammonia, increase the number of partners in Japan and abroad, and aim to scale up CCUS. "MISSION NET ZERO" sets a long-term goal of Net Zero by 2040 for the company and its entire value chain to achieve the Paris Agreement target of carbon neutrality by 2050. MHI discloses its strategic plan to achieve the above goals as a "transition" roadmap. Specifically, MHI's transition strategy is consistent with the International Energy Agency's World Energy Outlook and the roadmaps for transition by sector (power sector, gas sector, iron and steel sector, chemical sector, international shipping sector, and aviation sector) of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, as well as plans or strategies for decarbonization such as the "Basic Energy Plan" and the "Basic Policy for the Realization of GX," and also refers to international frameworks such as EU Taxonomy. It also incorporates an action plan to achieve less than 2°C using TCFD. In addition, if it becomes necessary to revise our efforts to achieve sustained emission reductions in the future, MHI plans to implement them according to the timeline as appropriate. MHI recognizes the implementation of transition strategies as one of the ways to promote sustainability, and has established a system and framework to promote the initiatives set forth in "MISSION NET ZERO" at the management level. Specifically, MHI established the "Materiality Council," chaired by the CEO, which meets twice a year and reports on its activities to the Board of Directors on a regular basis. Similarly, the "Sustainability



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		Sustainable Development Goals (UN SDGs).		Committee", chaired by the CSO, meets twice a year and reports on its activities to the Board of Directors at least once a year. In addition, the assessment results by major ESG evaluation bodies, including an assessment of compliance to climate change, are reflected in executive remuneration (share-based remuneration portion) from FY2023.
				MHI is committed to "developing business activities that take into its diverse range of our stakeholders into consideration and return profits to all stakeholders in optimum fashion, while at the same time providing excellent products and technologies to realize a 'sustainable society' and a secure future for people and the planet." MHI also states to aim to reach Net Zero ten years earlier than 2050, taking into account the lead time required for products and technologies to be broadly applied in society, and furthermore, MHI states in the "2024 Medium-Term Business Plan" to aim to "become a hub for ecosystems to change society." DNV judges that these goals and ideas contribute to the aim of just transition, which is presented as "ensure that the substantial benefits of a green economy transition are shared widely." The Framework also states that " in order to realize a carbon neutral society while maintaining people's current standard of living, we believe that the phased decarbonization of power generation systems is necessary. To that end, we are proposing solutions that help to reduce CO <sub>2</sub> emissions." and DNV judges that it also shows consideration for just transition.
				MHI aims to address materiality through its business activities and contribute broadly to the achievement of the SDGs, the sustainable development goals set forth by



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				the United Nations. Of these, the materiality to which Green/Transition Finance is primarily related is "provide energy solutions to enable a carbon neutral world." Based on the evaluation of the Framework, "MISSION NET ZERO," and the Implementation Plan, DNV has confirmed that they are well aligned with MHI's Transition Strategy. Through the evaluation, DNV judges that the implementation plan based on the Transition Strategy is credible, ambitious, and highly feasible.
2	Business model environmental materiality	The climate transition strategy should be relevant to the environmentally material parts of an issuer's business model, taking into account potential future scenarios which may impact current determinations concerning materiality.	Confirmed documents - Framework - MISSION NET ZERO - 2024 Medium-Term Business Plan - International Energy Agency World Energy Outlook	DNV assessed whether key activities related to MHI's business operations corresponded to MHI's Transition Strategy, which was evaluated as an environmental contribution. MHI's GHG emission results (FY2020-2022) are shown below. Unit: kt-CO <sub>2</sub>
		<ul> <li>Recommended information and indicators:</li> <li>Discussion on the materiality of the planned climate transition strategy may:</li> <li>be disclosed in the form of a materiality matrix made publicly available by an issuer or be covered in an issuer's annual reports; and</li> <li>address the materiality of climate- related eligible projects and/or KPI(s) on</li> </ul>	<ul> <li>Outlook</li> <li>Ministry of Economy, Trade and Industry Roadmap (Power, Gas, Iron and Steel, Chemical)</li> <li>Ministry of Land, Infrastructure, Transport and Tourism Roadmap (International Shipping, Aviation)</li> <li>MHI Group Integrated Report 2023</li> </ul>	Target Scope         FY2020         FY2021         FY2022           Scope1*1         102         118         112           Scope2*2         247         225         214           Scope3*3         (Category 11:         720,474         1,578,348         1,236,526           Use of Sold         (715,000)         (1,573,000)         (1,231,000)           Products)         *1: Obtained a third-party assurance. Scope: MHI and domestic group companies         (15 companies in FY2020, 12 in FY2021, and 11 in FY2022) Under examination for FY2022



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		the overall emissions profile of an issuer.where Scope 3 emissions are expected to be material but are not yet identified or measured, a timeline for reporting should be disclosed.	<ul> <li>MHI Group ESG DATABOOK</li> <li>SUSTAINABILITY DATABOOK 2023</li> <li>Interviews with stakeholders</li> </ul>	<ul> <li>*2: Obtained a third-party assurance. Calculated based on market standards. Scope: MHI and domestic group companies (15 companies in FY2020, 12 in FY2021, and 11 in FY2022) Under examination for FY2022</li> <li>*3: Figures may change due to a review of the scope and calculation method.</li> <li>* Detailed data has been disclosed in the "SUSTAINABILITY DATABOOK" and "ESG DATABOOK."</li> </ul>
				MHI's transition efforts include not only emission reductions from its own business activities (Scopes 1 and 2), but also Scope 3 and activities that contribute to reductions at other companies. This will contribute to the implementation of supply-side and demand-side carbon neutrality as an important initiative presented in various plans and strategies for decarbonization in Japan. In other words, as a company that manufactures and sells key systems, facilities, and equipment for energy, steel, and other $CO_2$ many emitting businesses, MHI's Transition efforts directly support the transition of society as a whole, including its own.
				MHI's Transition Roadmap is well aligned with the International Energy Agency's World Energy Outlook and the roadmaps for transition by sector (power sector, gas sector, iron and steel sector, chemical sector, international shipping sector, and aviation sector) of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, as well as plans or strategies for decarbonization such as the "Basic Energy Plan" and the "Basic Policy for the Realization of GX," and also refers to international frameworks such as EU Taxonomy. Thus, it is intended to enable these



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				sectors to quickly provide the products and services that are indispensable to make the transition a reality. Their specific implementation plans and goals are set and quantified to ensure that they are the best possible solutions available today and allow for further improvement.
				DNV confirmed that MHI's plan to implement its transition strategy is closely linked to the activities of MHI's core business and to activities that contribute to the reduction of CO <sub>2</sub> throughout society, thus contributing to the environmental aspects of society as a whole and supporting the promotion of MHI's business. MHI's planned transition strategy and transition pathway are linked to the materiality of MHI's use of the GRI Standards <sup>*1</sup> , ISO 26000, SASB Standards, TCFD, etc., and will contribute to significant environmental benefits (impact) in qualitative and quantitative terms. *1: Global Reporting Initiative (an international standard providing ESG-related reporting, management and analysis tools)
3	Climate transition strategy and targets to be science-based	An issuer's climate transition strategy should reference science-based targets and transition pathways. There is scientific guidance around the required rate of GHG emission reductions (the "GHG emissions reduction trajectory") to align the global economy with the goals of	Confirmed documents - Framework - MISSION NET ZERO - 2024 Medium-Term Business Plan - International Energy Agency World Energy Outlook	MHI has established a transition plan consistent with the science-based Paris Agreement and a transition trajectory consistent with the International Energy Agency's World Energy Outlook and the roadmaps of METI and MLIT. This plan provides a realistic achievement and pathway for $CO_2$ emission reductions in absolute terms and a plan to reduce $CO_2$ emissions in absolute (total) terms to maintain defined levels in the future.



The planned transition trajectory Trade and Industry in terms of e	emissions intensity tent measurement assumptions. Trans	isition strategy is quantified and absolute values based methodology based on ition targets are set
should:Roadmap (Power, Gas, Iron and Steel, Chemical)on a consist prescribed a voluntarity b sustainable methodology;•be aligned with, benchmarked, or otherwise referenced to recognized third-party, science-based trajectories, where such trajectories are not available, consider industry peer comparison and/or internal methodologies/historical 	CO₂ emission reduce with the World Energinal Energy Agency, w , and the policies of Industry and the Mi ure, Transport and T , MHI has established Reduce CO₂ emissions across MHI Group (Scopes 1 and 2)*1 ▲50% (compared to 2014) Net Zero ulation standard is base ulation standard is base ulation standard is base er, reductions achieved as MHI's original inder emission reductions from its own busine o Scope 3 and activition at other companies ation of supply-side as an important initial	and other initiatives for ctions, and they are gy Outlook of the which serves as a <sup>5</sup> the Ministry of Economy, nistry of Land, Fourism. ed the following goals for Reduce CO₂ emissions across MHI's value chain (Scope 3 + reductions from CCUS)*2 ▲50% (compared to 2019) Net Zero Sed on the GHG Protocol. sed on the GHG Protocol.



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<ul> <li>and indicators:</li> <li>short, medium, and long-term GHG emission reduction targets aligned with the Paris Agreement;</li> <li>baseline year and historic emissions (including absolute emissions, where intensity metrics are the main indicator);</li> <li>scenario utilized and methodology applied (e.g., ACT, SBTi, and IEA). When third-party trajectories are not available, industry peer comparison and/or internal methodologies/historical performance;</li> <li>GHG emission objectives covering all scopes and most relevant subcategories (Scopes 1, 2, and 3);</li> <li>targets formulated in either intensity or absolute terms, noting, that where intensity targets are used, projections on the change to absolute emissions should also be provided; andwhere applicable, use of carbon capture technology as well as of high- quality and high-</li> </ul>		other words, as a company that manufactures and sells key systems, facilities, and equipment for energy, steel, and other high CO <sub>2</sub> emission business, MHI's Transition efforts directly support the transition of society as a whole, including its own. In 2030, the mid-point of the 2040 carbon neutrality target, MHI has set a target to reduce the absolute value of Scopes 1 and 2 by approximately 480,000 tonnes (50% reduction compared to FY2014) and of Scope 3 by approximately 680 million tonnes (50% reduction compared to FY2019). For Scope 3, it is indicated that MHI aims to achieve carbon neutrality by 2040 by providing products, technologies, and services related to CO <sub>2</sub> capture, transport, storage, and utilization to industries that have difficulty in reducing emissions, and by taking into account the emission reductions. Transition efforts and emissions for each scope have been disclosed in "MISSION NET ZERO", "MHI Group Integrated Report," etc.



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		integrity carbon credits, and their relative contribution to the GHG emissions reduction trajectory in line with best industry practices (e.g., SBTi, VCMI, and ICVCM).		



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
4	Implementation transparency	<ul> <li>Market communication regarding the offer of a GSS financing instrument intended to fund an issuer's climate transition strategy should also be transparent, to the extent practicable, on the underlying investment program including capital and operational expenditures (CapEx and OpEx).</li> <li>Recommended information and indicators: <ul> <li>CapEx roll-out plan consistent with the overall climate transition strategy and climate science and discussion of how it informs CapEx decision-making within the organization;</li> <li>phase-out plan regarding activities/products incompatible with the climate transition strategy (when such activities or products are significantly harmful or display levels of performance inconsistent with science-based GHG emission reduction trajectories);</li> <li>green CapEx, for example those referenced under the eligible green project</li> </ul> </li> </ul>	<ul> <li>Confirmed documents <ul> <li>Framework</li> <li>MISSION NET ZERO</li> <li>2024 Medium-Term Business Plan</li> <li>International Energy Agency World Energy Outlook</li> <li>Ministry of Economy, Trade and Industry Roadmap (Power, Gas, Iron and Steel, Chemical)</li> <li>Ministry of Land, Infrastructure, Transport and Tourism Roadmap (International Shipping, Aviation)</li> <li>MHI Group Integrated Report 2023</li> <li>Project list</li> <li>CO<sub>2</sub> reduction effects estimation results</li> <li>SUSTAINABILITY DATABOOK 2023</li> </ul> </li> </ul>	DNV has confirmed that MHI's investment and deployment plans related to the Transition Strategy include agreements for future investments and expenditures. Specifically, under the "2024 Medium-Term Business Plan," a cumulative total of 650 billion yen is planned to be invested in Growing Core Businesses and Future Growth Areas over three years, almost double the amount of the "2021 Medium-Term Business Plan," with a total of 2 trillion yen planned from FY2021 to 2030, which encompasses projects to be implemented under green/transition finance. In its information disclosure in line with MHI's TCFD recommendations, DNV has assessed the financial impact of applying the carbon price projections in the IEA's Net Zero Emissions by 2050 to the Scopes 1 and 2 forward- looking values in the absence of CO <sub>2</sub> emission reduction measures as "large," and has confirmed that MHI is promoting carbon neutrality to mitigate this impact. In addition, as MHI participates in the GX League and plans to participate in voluntary emissions trading (GX-ETS), DNV judges that MHI is expected to better understand and address the impact of carbon price and taxation in the future. DNV confirmed that the overall investment plan (investment amount) for the future is a plan where the investments required to implement the transition strategy will be executed according to the appropriate timeline in accordance with the internal management structure and processes, taking into account CTF-1 to 3. MHI plans to allocate to R&D, business development, management, operation, and other related expenditures



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<ul> <li>categories in the Green Bond Principles, as a percentage of total CapEx and how the ratio may be expected to evolve over time;</li> <li>disclosure on the percentage of assets/revenues/ expenditures/divestments aligned to the various levers;</li> <li>a qualitative and/or quantitative assessment of the potential locked-in GHG emission from an issuer's key assets and products;</li> <li>assumptions on the internal cost of carbon; and</li> <li>disclosure on adverse impacts on the workforce, community and surrounding environment, and related strategies used to mitigate those negative impacts.</li> </ul>		for the nominated eligible transition projects shown in Schedule-1. Through the assessment, DNV judged that MHI's transition strategy can be viewed as a non- Business-as-Usual concept in terms of directly and indirectly supporting the decarbonization of society as a whole.



## Schedule-3 Green Bond and Transition Finance with Specific Use of Proceeds Eligibility Assessment Protocol

The following checklists (GBP/GLP-1 to 4) are a DNV assessment protocol created for MHI Green/Transition Finance (Bonds and Loans) Eligibility Assessment (bonds and loans with specific use of proceeds) based on the requirements of GBP/GBGL and GLP/GLGL. The "Confirmed documents" in the "Work Undertaken" includes internal documents of the issuer and is provided by MHI as evidence of eligibility judgment for DNV.

In Schedule-3, it is referred to as GBP or GLP according to the practice, but this is the standard to be referred to in the case of financing that specifies the use of proceeds such as transition projects in transition finance (bonds and loans) with specific use of proceeds based on CTFH/CTFBG, so please read as the meaning of the transition as appropriate.

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1a	Types of funds	<ul> <li>The types of green/transition bonds are classified into one of the following types defined by GBP.</li> <li>(Standard) Green/Transition Bond/Loan</li> <li>Green/Transition Revenue Bond/Loan</li> <li>Green/Transition Project Bond/Loan</li> <li>Other</li> </ul>	Confirmed documents - Framework Interviews with stakeholders	Through the evaluation work, DNV confirmed that MHI Green/Transition Finance (bond/loan) falls into the following categories. • (Standard) Green/Transition Bond/Loan
1b	Green/transition project classification	The key to a green/transition finance is that the proceeds will be used for a green/transition project, which should be properly stated in the statutory documents relating to the security.	Confirmed documents - Framework - Project list - CO <sub>2</sub> reduction effects estimation results Interviews with stakeholders	DNV has confirmed that the MHI Green/Transition Finance is intended to fund a wide range of green/transition projects focused on MHI's environmental goals and transition strategies as described in the Framework and Schedule-1. Specifically, all green/transition finance categories and nominated eligible projects listed in the table below and Schedule-1 have been evaluated to meet the Transition

## GBP/GLP-1 Use of Proceeds



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings	
				Finance will be alloc nominated eligible of transition project ha	roceeds from Green/Transition cated to fund one or more of the green/transition projects. If a as been selected prior to financing, it statutory documents etc.
				nominated eligible g	ment, DNV concluded that the green/transition projects will provide nvironmental benefits.
				Category	ransition Finance Eligible Project
					Green Projects
				Eligible businesses and/or projects	Eligibility Criteria
				Renewable Energy	<ul> <li>Wind power (wind power plants)</li> <li>Geothermal power (geothermal power plants)</li> <li>Solar power</li> </ul>
				Clean Energy	<ul> <li>Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen firing)</li> <li>Ammonia gas turbine (ammonia power generation businesses and/or projects for 100% ammonia firing)</li> <li>Steam Power (conversion to 100% ammonia firing)</li> <li>Gas engine for power generation (100% hydrogen firing)</li> <li>Hydrogen production (green)</li> <li>Ammonia production (green)</li> <li>Biogas production</li> </ul>



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings		
				Transition Projects		
				Eligible businesses and/or projects	Eligibility Criteria	
				Decarbonize existing infrastructure	<ul> <li>LNG-fueled high-efficiency gas turbine</li> <li>Steam Power (conversion to ammonia co-firing)</li> <li>Nuclear Energy Systems</li> <li>Gas engine for power generation (hydrogen co-firing)</li> <li>Metals machinery (hydrogen-reduced ironmaking, etc.)</li> <li>Material Handing (high efficiency and fuel cell powered)</li> <li>Hydrogen gas turbine (co-firing)</li> <li>Ammonia gas turbine (co-firing)</li> <li>Synthetic fuel such as Sustainable Aviation Fuel (SAF)</li> </ul>	
				Build a hydrogen solutions ecosystem	<ul> <li>Hydrogen compressors (for hydrogen production, transport and storage, etc.)</li> <li>Hydrogen production (blue or turquoise, etc.)</li> <li>Ammonia production (blue or turquoise, etc.)</li> </ul>	
				Build a CO <sub>2</sub> solutions ecosystem	<ul> <li>CO<sub>2</sub> capture and storage</li> <li>CO<sub>2</sub> transport (liquefied CO<sub>2</sub> carries, etc.)</li> </ul>	
1c	Environmental benefits	All green/transition projects to which the proceeds are used should have clear environmental benefits, the	Confirmed documents - Framework - Project list	low and decarboniz	rojects are projects that contribute to ation through two or three assifications for each of the	



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		effects of which should be assessed by the issuer and, where possible, quantitatively demonstrated.	<ul> <li>CO<sub>2</sub> reduction effects estimation results</li> <li>Interviews with stakeholders</li> </ul>	green/transition categories shown in 1b, which contribute to MHI's Transition Strategy-based goals. The environmental benefits are CO <sub>2</sub> emission reductions, which are quantitatively evaluated by the Issuer. Before the implementation of the green/transition finance, it was confirmed that the environmental benefits evaluation method (calculation method) of the project to be allocated by the subject finance will be disclosed, and that it will be quantitatively evaluated and reported as CO <sub>2</sub> emission reductions in the annual reporting.
1d	Refinancing ratio	If all or part of the proceeds are used or may be used for refinancing, the issuer will indicate the estimated ratio of the initial investment to the refinancing and, if necessary. Therefore, it is recommended to clarify which investment or project portfolio is subject to refinancing.	Confirmed documents - Framework - Project list - CO <sub>2</sub> reduction effects estimation results Interviews with stakeholders	The Issuer plans to allocate all proceeds to make new investments, refinance, or both in one or more of the nominated eligible projects included in Schedule-1. If it is clear whether the proceeds will be allocated to new investment or refinancing prior to the finance implementation, it will be disclosed in statutory documents. If it is undecided, MHI plans to disclose the estimated amount (or percentage) of the proceeds that will be allocated to refinancing through reporting (annual report).



GBP/GLP-2 Process for Project Evaluation and Selection

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
2a	Project selection process	<ul> <li>Green/transition bond issuers should provide an overview of the process of determining eligible projects for which the green/transition bond will be used. This includes (but is not limited to):</li> <li>The process by which the issuer determines that the project in question is included in the business category of an eligible green/transition project.</li> <li>Creation of criteria for eligibility of projects for which the green/transition bond will be used</li> <li>Environmental sustainability goals</li> </ul>	Confirmed documents - Framework - Process for Project Evaluation and Selection Interviews with stakeholders	DNV confirmed that the Issuer has a process document that determines the eligibility of the project for which the green/transition finance proceeds are to be allocated and that it is clearly outlined in the Framework.
2b	Issuer's environmental and social governance framework	In addition to criteria and certifications, the information published by issuers regarding the green/transition bond process also considers the quality of performance of the issuer's framework and environmental sustainability.	Confirmed documents - Framework - Process for Project Evaluation and Selection Interviews with stakeholders	When selecting green/transition projects, the Issuer considers compliance with environmental laws, ordinances, and regulations, as well as clear environmental benefits such as CO <sub>2</sub> reduction throughout the life cycle or in each process. In operating and implementing its projects, the Issuer is committed to preserving the surrounding environment in all relevant departments. DNV confirmed that the green/transition projects implemented by the Issuer are consistent with the Issuer's management and environmental policies, as well as with the transition strategy, goals, and pathways.



# GBP/GLP-3 Management of Proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
За	Tracking procedure-1	The net proceeds from of green/transition bond should be managed in sub-accounts, included in sub-portfolio, or otherwise tracked. It should also be certified by the issuer in a formal internal process related to the issuer's investment and financing operations for the green/transition project.	<ul> <li>Confirmed documents</li> <li>Framework</li> <li>Document Retention Period Criteria Table</li> <li>Green Bond Proceeds Management Chart</li> </ul> Interviews with stakeholders	DNV confirmed that the net proceeds related to the proceeds by the green/transition finance are traceable to the Issuer's internal management systems etc. Through the assessment, DNV confirmed that the systems and documents actually used are verified and certified accordingly.
3b	Tracking procedure-2	During the green/transition bond redemption period, the balance of proceeds that is being tracked should be adjusted at regular intervals to match the amount allocated to eligible projects undertaken during that period.	<ul> <li>Confirmed documents <ul> <li>Framework</li> <li>Document Retention</li> <li>Period Criteria Table</li> <li>Green Bond Proceeds</li> <li>Management Chart</li> </ul> </li> <li>Interviews with</li> <li>stakeholders</li> </ul>	DNV confirmed that the Issuer plans to review the balance of the green/transition finance on a regular basis (at least once a year) during the period between the implementation of the green/transition finance and its redemption or repayment, through the internal control system etc. described in 3a.
3с	Temporary holding	If no investment or payment has been made in an eligible green/transition project, the issuer should also inform the investor of the possible temporary investment method for the balance of unallocated proceeds.	Confirmed documents - Framework - Document Retention Period Criteria Table - Green Bond Proceeds Management Chart Interviews with stakeholders	DNV confirmed that the confirmation process through the Issuer's internal management system and other systems is a mechanism that allows for the sequential recognition of unallocated balances. DNV confirmed through the Framework and assessment that the balance of unallocated proceeds will be managed in cash or cash equivalents. DNV also confirmed that the balance of unallocated proceeds will be identified through the reporting of allocation status.



GBP/GLP-4 Reporting

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
4a	Periodical Reporting	In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, the issuer will consider each project at least once a year for projects to which the green/transition bond proceeds have been allocated, taking into account the following, and a list of each project should be provided: - Confidentiality and competitive considerations - Outline of each project, expected sustainable environmental and social effects	Confirmed documents - Framework - Project list - CO <sub>2</sub> reduction effects estimation results	DNV confirmed that the Issuer will conduct green/transition finance reporting (annual reporting) at least until the proceeds are allocated, disclosing information on the allocation status of proceeds, the projects to which the proceeds have been allocated, and the environmental benefits. In addition, DNV confirmed that even after the allocation is completed, any changes in the transition strategy or pathway, or any major changes in the allocation plan or project implementation status (e.g., suspension of a project that has initiated allocation, significant deferral on an annual basis, and sale or retirement) will be reported in a timely manner or in the reporting. Reporting will be published on the website. <allocation status=""> • Allocation status to eligible projects • Amount or share of allocated and unallocated proceeds, allocation schedule, and the management method • Ratio of new financing to refinancing <environmental benefits=""> • Plans to disclose the outline (including progress of research and development, operation, etc.) of the project and the expected environmental benefits (e.g., t-CO<sub>2</sub>/year (calculate reduction effect based on the number of equipment installed, number of equipment sold, intensity ((g-CO<sub>2</sub>/kWh), etc.)), within the scope of confidentiality and to the extent practicable, and taking into account the characteristics of the project</environmental></allocation>