



SECOND PARTY OPINION

MITSUBISHI HEAVY INDUSTRIES, LTD. GREEN/TRANSITION FINANCE FRAMEWORK

Prepared by: DNV Business Assurance Japan K.K.

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This report was prepared in the "Climate Transition Finance Model Project in FY2021 (Investigation of ideal way of Transition Finance)" which is a commissioned project by the Ministry of Economy, Trade and Industry.





Executive Summary

Mitsubishi Heavy Industries, Ltd. (hereinafter, "MHI" *including MHI Group) was founded on 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 Energy Systems, Plant & Infrastructure Systems, Logistics, Thermal & Drive Systems, Nuclear Energy Systems, Machinery Systems, Integrated Defense & Space Systems, and Commercial Aviation Systems, 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 "realization of a green society" as one of the three key themes MHI aims to achieve in 2030. In addition, in the mid-term business plan "2021 Business Plan" (FY2021-FY2023), MHI has identified two growth areas: "Energy Transition," which aims for decarbonization on the energy supply side, and "New Mobility & Logistics" which aims for decarbonization, energy conservation, and manpower savings in the energy demand side in order to steadily realize the goal of "providing energy solutions to enable a carbon neutral world" one of the five materialities.

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 of 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, International Shipping of Ministry of Land, Infrastructure, Transport and Tourism in December 2020.

MHI will finance the investment to contribute to transition strategies to lead transition efforts to a decarbonized society as green/transition financing. In addition, MHI will engage in dialogue with investors and a wide range of market participants and has established MHI Green/Transition Finance Framework (hereinafter, "framework") to implement the finance in a manner consistent with internationally established frameworks.

DNV Business Assurance Japan K.K. (hereinafter, "DNV"), as an external reviewer, evaluated the eligibility of the framework and the MHI Green/Transition Bonds (to be issued after March 2022).

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, 2020, 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)
- Green Bond Guidelines (Ministry of the Environment, 2020, hereinafter GBGLs)
- Green Loan Principles (Loan Market Association (LMA) and others, 2021 hereinafter GLP)
- **Green Loan and Sustainability Linked Loan Guidelines** (Ministry of the Environment, 2020, hereinafter GLGLs) (applicable to green loans only)

The following is a summary of the assessment results for each common element indicated in the above handbooks, principles and guidelines. Followings (CTF-1 \sim CTF-4) are findings and opinions of DNV against the four common elements of the CTFH and CTFBG (disclosure elements); Followings (GBP/GLP-1 \sim GBP/GLP-4) are findings and opinions of DNV against the elements of GBP/GBGLs and GLP/GLGLs as a transition finance with Use of Proceeds.



<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. In addition, as governance and disclosure related to implementation, an internal structure and information disclosure process based on the recommendations of the TCFD*1 have been established. 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 businesses, 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 GRI standards^{*1}, ISO 26000, SASB, 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. 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 to be 'science-based' including targets and pathways:

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, which are described in CTF-1. In addition to CO₂ 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.

These are disclosed in the framework or through a second party opinion, and meet the disclosure elements of CTF-3. In addition, MHI's approach to transitions contributes to the transitions of society as a whole, including its own, as a company that manufactures and sells key systems, facilities, and equipment for energy, iron and steel, and other CO_2 emitting businesses.

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 "MISSION NET



ZERO", MHI plans to invest 180 billion yen scale in growth areas including decarbonization by 2023, 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. 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. 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-1.

Table 1: Green Projects*1

Eligible Businesses and/or Projects	Eligibility Criteria			
Renewable	· Wind power (wind power plants)			
energy	· Geothermal power (geothermal power plants)			
Clean Energy	Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen firing)			
	Ammonia gas turbine (ammonia power generation businesses and/or projects for 100% ammonia firing)			
	Hydrogen/ammonia production (green)			
	Steam power (conversion to 100% ammonia firing)			
	· Gas engine for power generation (100% hydrogen firing)			
Related SDGs	9 4 CO CO			

^{*1}Projects that qualify as green projects can be incorporated as green projects in future green bond issues. Green projects are also permitted within the CTFBG to be incorporated as part of a transition bond issue.

Table 2: Transition Projects*2

Eligible Businesses and/or Projects	Eligibility Criteria
Decarbonize existing infrastructure	 Hydrogen gas turbine (co-firing) Ammonia gas turbine (co-firing) LNG-fueled high-efficiency gas turbine Steam power (conversion to ammonia co-firing) Gas engine for power generation (hydrogen co-firing) Material Handing (high efficiency and fuel cell powered)
Build a hydrogen solutions ecosystem	 Hydrogen production (blue or turquoise, etc.) Ammonia production (blue or turquoise, etc.) Hydrogen compressors (for hydrogen production, transport and storage, etc.) Metals machinery (hydrogenreduced ironmaking, etc.)
Build a CO ₂ solutions ecosystem	 CO₂ capture and storage CO₂ transport (liquefied CO₂ carries, etc.)
Related SDGs	9 3 12 12 18 18 18 18 18 18 18 18 18 18 18 18 18

^{*2} Some projects classified as transition projects at this time may become green projects through the application/applied of future technological innovations. (e.g., application of green fuels/production processes, achieving performance that meets CO₂ emission standards as green projects, etc.).



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-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-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 Bond to be implemented this time would be appropriately planned and implemented in accordance with this framework.





Table Green/Transition Bonds (to be issued after April 2022) Overview of the six projects (1/3)

Eligible businesses and/or Projects	Eligibility Criteria	Project	t Overview	
Decarbonize existing infrastructure	Hydrogen gas turbine (100% firing/co- firing)	 Project Name: Development of Hydrogen GTCC Project Overview: Development of 100% hydrogen firing and co-firing gas turbine, combustion testing at actual pressure Period: ~FY2030 (planned) Environmental benefits: CO₂ Reduction rate from existing facilities (intensity): -10% for 30% (vol%) hydrogen co-firing, -100% for 100% hydrogen firing 	Hydrogen gas turbine schematic diagram	
Decarbonize existing infrastructure	Steam power (conversion to ammonia co-firing)	 Project Name: Development and Demonstration of High Ammonia Co-firing Technology in Coal Boilers Project Overview: Development of an ammonia burner suitable for coal boilers and demonstration operation using actual equipment New Energy and Industrial Technology Development Organization (NEDO) "Green Innovation Fund Project/Project for Establishment of Fuel Ammonia Supply Chain Period: FY2021~FY2028 (planned) Environmental benefits: CO₂ Reduction rate from existing facilities (intensity): -20% in case of 20% ammonia co-firing 	Coal & Ammonia Coal & Ammonia Mixed combustion	





Table Green/Transition Bonds (to be issued after April 2022) Overview of the six projects (2/3)

Eligible businesses and/or Projects	Eligibility Criteria	Project (Overview	
Decarbonize existing infrastructure	Gas engine for power generation (100% hydrogen firing/co-firing)	 Project Name: Development of Hydrogen Gas Engine Technology Project Overview: Development for practical use of hydrogen engines based on conventional diesel and gas engines Period: FY2019 - FY2030s (planned) Environmental benefits: CO₂ Reduction rate from existing facilities (intensity): -10% in case of 30% hydrogen co-firing (volume ratio), -100% for 100% hydrogen firing 	Internal schematic diagram of hydrogen gas engine Air Fuel Gas Exhaust Gas Plug Plug Plug Piston Piston	
Build a hydrogen solutions ecosystem	Hydrogen production (blue or turquoise, etc.)	 Project Name: Hydrogen Power Generation Demonstration Facility "Takasago Hydrogen Park" Project Overview: Development, verification and manufacturing of 100% hydrogen firing hydrogen gas turbine for early commercialization (Takasago City, Hyogo Prefecture "Takasago Hydrogen Park") Period: FY2021 - FY2023 (planned) Environmental benefits: Project overview and progress will be reported. 	Planned completion of Takasago Hydrogen Park TAKASAGO HYDROGEN PARK	



Table Green/Transition Bonds (to be issued after April 2022) Overview of the six projects (3/3)

Eligible businesses and/or Projects	Eligibility Criteria	Project Overview	
Build a hydrogen solutions ecosystem	Metals machinery (hydrogen- reduced ironmaking, etc.)	 Project Name: Research and Development of Hydrogen-Reduced Ironmaking Technology Project Overview: Hydrogen-based Fine Ore Reduction (HYFOR): Associated development and engineering work for the demonstration of industrial prototype plant for HYFRO, a new direct reduction process based on fluidized bed technology that allows the direct usage of iron ore (ultra) fines without any agglomeration step. As a transition technology, HYFOR can be operated with natural gas, H2-rich gas and 100% pure H2. Period: FY2021 - FY2025 (planned) Environmental benefits: Reduction rate of CO₂ emission from conventional products: -80% or more 	Hydrogen-reduced ironmaking process flow Pellet Feed OXIDATION PREMEATING OXIDATION REDUCTION PRINTED BEST OF THE PRINTED
Build a CO ₂ solutions Ecosystem	CO ₂ capture and storage	 Project Name: Improve performance of CO₂ capture technologies and increase applications of CO₂ from variety of emission sources. Project Overview: Improved CO₂ Capture Process Performance (enhancement of amine-based solvents (KS-1, KS-21, etc.) as our core technologies), expansion of product lineup from CO₂ capture plant to compact CO₂ capture system, etc. Period: ~FY2030 (may continue beyond 2030) Environmental benefits: CO₂ capture rate from flue gas: 90% and above (captured CO₂ Purity 99.9% or above) 	CO ₂ capture process flow



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Revision History

Revision Date of issue	Remarks	
0	18/3/2022	Initial

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.

I. Introduction

i. About the Issuer

Mitsubishi Heavy Industries, Ltd. (hereinafter, "MHI" *including MHI Group) was founded on July 7, 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 7 business systems (domains/segments).*1

*1: Edited by DNV based on the Mitsubishi Heavy Industries website.

Energy Systems Clean gas and steam power systems, renewable

energy power systems, nuclear power systems, compressors, aeroengines, and marine machinery

Plant & Infrastructure Systems Commercial ships, transportation systems,

chemical plants, CO₂ capture plants, waste to energy systems, and sludge treatment systems.

Logistics, Thermal & Drive Systems Forklift trucks, logistic systems, business

customers air conditioners, centrifugal chiller, heat

pumps, power generation engines, marine

engines, and turbochargers.

Nuclear Energy Systems Development, manufacture, operation and

maintenance of nuclear power plants.

Machinery Systems Traffic management systems; testing equipment;

industrial machinery; particle accelerators;

cultural, sports, and leisure facilities; rubber and

tire machinery.

Integrated Defense & Space Systems Defense aircraft, missile systems, special

vehicles, naval ships, maritime systems, and space

systems.

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



Commercial Aviation Systems

Manufacture and assembly of commercial aircraft, including fuselage, wings, doors, etc.



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).

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

Table-1 Relationship between materiality and company-wide goals and SDGs

Table-1 Relationship between materiality and company-wide goals and SDGS				
Materiality		Company-wide goals	Contribution to the SDGs	
0	Provide energy solutions to enable a carbon neutral world	 Decarbonize MHI Group's business activities by 2040 (Scope 1, Scope 2) Contribute to building up energy infrastructure toward a carbon neutral world by 2050 (supply side) Contribute to decarbonization in the energy demand sector by 2050 Contribute to building a circular economy 	18 15 CO	
Contribution business (Business)	Transform society through AI and digitalization	 Expand lineup of convenient and sustainable AI/digital products meeting needs of customers and users Create a future-oriented energy management structure Build a foundation to produce creative products 		
siness	Build a safer and more secure world	 Make critical infrastructure more resilient Make critical infrastructure unmanned or requiring fewer people Continuously strengthen cybersecurity measures for all MHI products Commercialize cross-domain security technologies Develop engineers keenly aware of safety and security needs in all products 	3 2 2 2 3 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4	
Foundation to support business (Corporate)	Promote diversity and increase employee engagement	 Create new value through participation of diverse human resources Ensure safe and comfortable workplaces Support the health and vitality of employees, so they can contribute to society Foster self-sustaining growth in all employees Increased employee engagement 	4 7% 5 8.25 10 10 10 10 10 10 10 10 10 10 10 10 10 1	
port business ate)	Enhance corporate governance	 Further improve Board of Directors meetings Promote legal compliance and honest and fair business practices Further promote responsible (CSR) procurement in the global supply chain Create opportunities to explain non-financial information 	16 100 400	



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 "realization of a green society" as one of the three key themes MHI aims to achieve in 2030. In addition, in the mid-term business plan "2021 Business Plan" (FY2021-FY2023), MHI has identified two growth areas: "Energy Transition," which aims for decarbonization on the energy supply side, and " New Mobility and Logistics " which aims for decarbonization, energy conservation, and manpower savings in the energy demand side in order to steadily realize the goal of "providing energy solutions to enable a carbon neutral world" one of the five materialities.

In pursuing these initiatives, MHI has set forth its transition efforts as a roadmap for becoming carbon neutrality in "MISSION NET ZERO" (Figure 1).

In the roadmap for transitioning to carbon neutrality, MHI has set the goal of reducing its own CO_2 emissions from its "business activities" (Scope 1 and 2) to 50% below 2014 levels by 2030 and to Net Zero by 2040. In addition, MHI aims to reduce the CO_2 emissions contribution from "Scope 1 and 2 of customer" (Scope 3) by 50% from 2019 levels 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_2 emissions throughout society (Figure-2). 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.

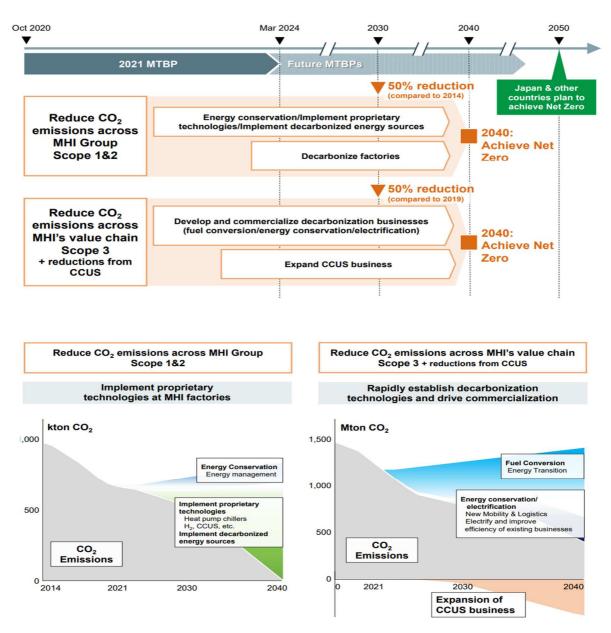


Figure-1: MHI "Roadmap to Achieve Carbon Neutrality"



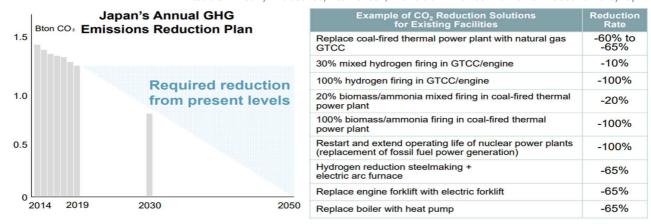


Figure-2 MHI "Contributions to Customers' Scope 1&2 Reductions"

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

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.		
Sustainable Development Goals (SDGs)	SUSTAINABLE DEVELOPMENT GOALS	(See Table-1) For more than 130 years, MHI has contributed to development of society in the spirit of its corporate principles, "Contribute to the advancement of society through company business.		
Task Force on Climate- related Financial Disclosures (TCFD)	TCFD	Endorsed the TCFD recommendations in March 2019; disclosure in line with TCFD recommendations beginning in FY2020.		





iv. 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*1*2*3*4*5 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, "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

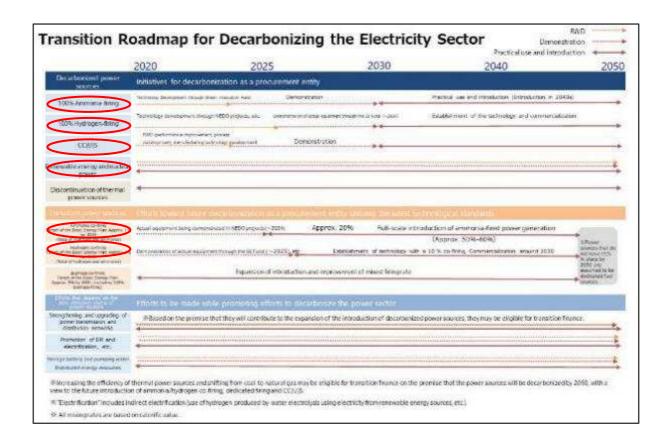


v. Issuer's Transition Strategy for Decarbonization

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

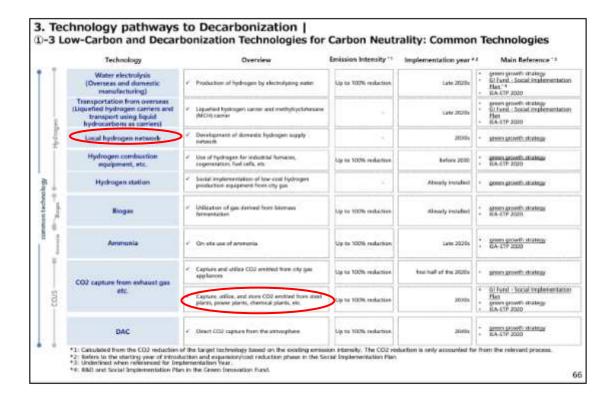
Figure-3 shows roadmaps by sector set by the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism. Although these roadmaps do not set clear interim targets, they show specific efforts toward carbon neutrality by 2050. MHI's transition roadmap is well aligned with Figure-3 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_2 emissions in society as a whole through contributions to CO_2 reduction throughout the entire value chain, including various key industrial sectors.

Electric Power Field

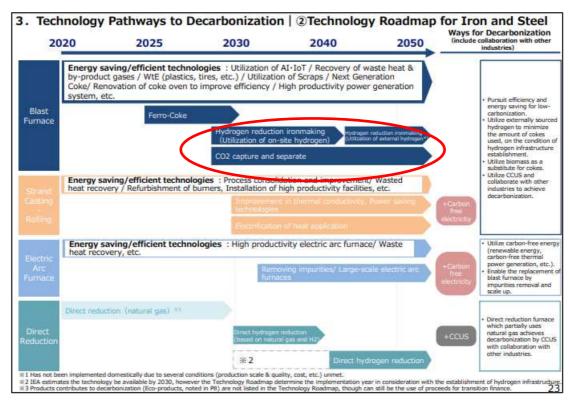




Gas Field

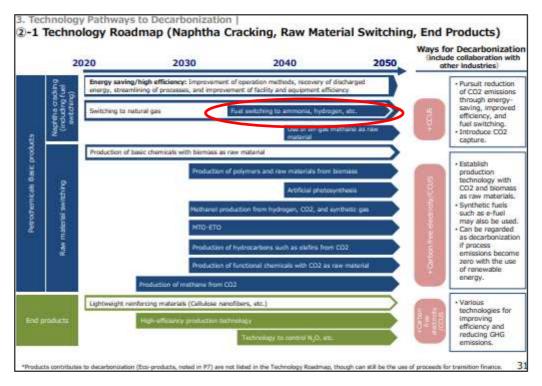


Iron and Steel Fields





Chemical Field



International shipping

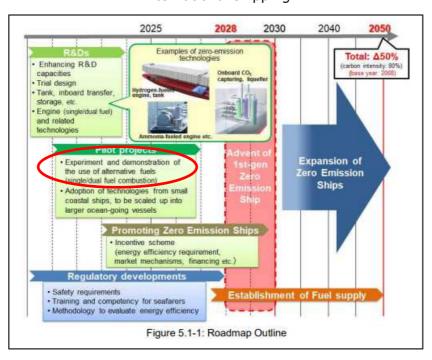


Figure-3 Ministry of Economy, Trade and Industry and Ministry of Land, Infrastructure, Transport and Tourism Roadmap by Sector



(2) Issuer's Transition Strategies

Under "MISSION NET ZERO", MHI has set a long-term goal of Net Zero in 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 businesses 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' Scope 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. Table-4 shows the low-carbon and decarbonization efforts toward carbon neutrality, and Figure-5 shows the transition strategy outline, specific efforts, and timeline 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 Scope 1&2*1	Reduce CO ₂ emissions across MHI's value chain Scope 3*2 + reductions from CCUS
2030	▲50% (compared to 2014)	▲50% (compared to 2019)
2040	Net Zero	Net Zero

Table-3 MHI Transition Targets

Reference: The short-term target is set in the MHI Group's Fifth Environmental Target (FY2021-FY2023) as "a 9% improvement in CO_2 emissions per unit of production from offices and plants in FY2023 compared to FY2014".

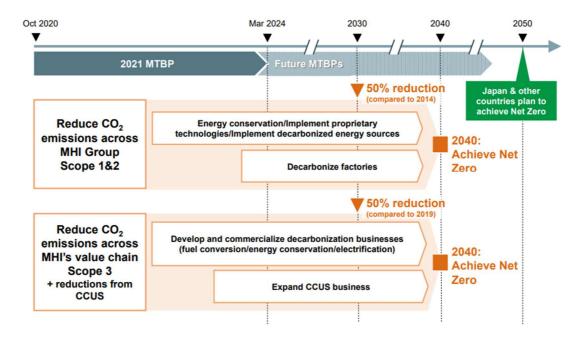
^{*1:} The calculation standard is based on the GHG Protocol.

^{*2:} The calculation standard is based on the GHG Protocol. However, we also account for reductions achieved by CCUS as an MHI original index.



Table-4 MHI Low and Decarbonization Initiatives Toward Carbon Neutrality

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





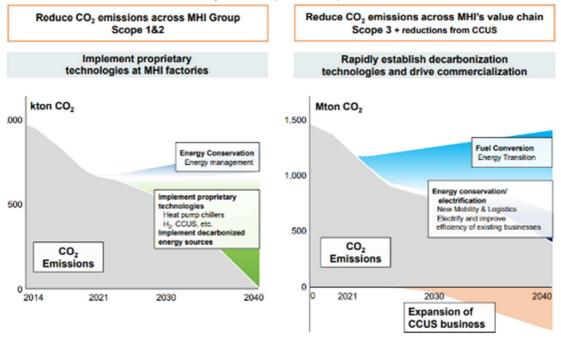


Figure-5 (Figure-1 reposted) MHI Group "Roadmap for Transition to Carbon Neutrality.

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

Figure-6 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 president, 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.

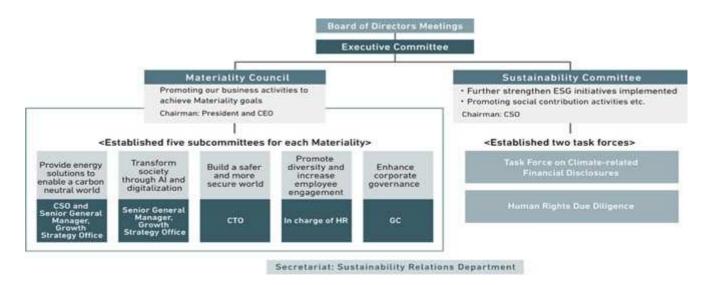


Figure-6: MHI Sustainability Promotion System

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: March 18, 2022



II. Scope and objectives

DNV has been commissioned by MHI to provide a pre-issuance assessment on MHI Green/Transition Finance Framework. Our objective has been to implement an assessment on whether the MHI's Green/Transition Finance Framework and the Green/Transition Bonds meet the criteria established on CTFH·CTFBG, GBP·GBGLs and GLP·GLGLs and provide a second party opinion on the eligibility of the MHI's Green/Transition Finance Framework and the Green/Transition Bond to be implemented.

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 report, no assurance is provided regarding the financial performance of the BOND, the value of any investments in the BOND, or the long-term environmental impacts of the transaction.

(1)Sc	cope of Review [*]						
The re	view assessed the following elements	s and co	onfirmed t	heir alignment with the gist of GBP/GLP			
\boxtimes	Use of Proceeds Process for Project Evaluation and Selection			for Project Evaluation and Selection			
\boxtimes	Management of Proceeds						
	*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)R	ole(s) of Review Provider						
\boxtimes	Second Party Opinion			Certification			
	Verification			Rating			
	Other (please specify):						



(3)Standards/Guidelines to be Applied

No.	Standards/guidelines	Scheme owner
1.	Climate Transition Finance Handbook (CTFH)*1	International Capital Markets Association (ICMA), 2020
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)*2*3	International Capital Markets Association (ICMA), 2021
4.	Green Bond Guidelines (GBGLs)*2*3	Ministry of the Environment, 2020
5.	Green Loan Principles (GLP)*2*3	Loan Market Association (LMA) and others, 2021
6.	Green Loan and Sustainability Linked Loan Guidelines (GLGLs)*2*3 (only green loans was applied)	Ministry of the Environment, 2020

^{*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 Bond Initiative's Climate Bond Standard.



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 issuer, MHI as possible, we have adapted our MHI Green/Transition Finance assessment methodologies, which incorporates the requirements of the CTFH, CTFBG, GBP, GBGLs, GLP and GLGLs, to create a MHI Green/Transition Finance Eligibility Assessment Protocol (hereinafter, "Protocol"). Please refer to Schedule-2. The Protocol is applicable to MHI Green/Transition Finance under the CTFH, CTFBG, GBP, GBGLs, GLP and GLGLs.

*Green projects were qualified using the Climate Bond Initiative's Climate Bond Criteria, 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, GBGLs, GLP and GLGLs.

(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 environmentally-material parts of the fundraiser's business model.

Principle Three: Transition is science-based including targets and pathway

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/GBGLs and GLP/GLGLs

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 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 GLGLs 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 Bonds)

- Creation of MHI-specific Protocol, adapted to the purpose of the MHI Green/Transition Finance, as described above and in Schedule-2 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 fundraisers' 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 disclosure elements of the CTFH and 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/GBGLs and GLP/GLGLs.

Please see Schedule-3 for details.

(1) Findings and opinions of DNV against the four common elements (disclosure elements) of CTFH and 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 "realization of a green society" as one of its three goals for 2030 as a key theme, and has identified two growth areas in the 2021 Business Plan: "Energy Transition" which aims for decarbonization on the energy supply side, and "New Mobility and Logistics" which aims for decarbonization, energy conservation, and manpower savings on the energy demand side. "MISSION NET ZERO" sets a long-term goal of Net Zero in 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 in 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' Scope 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, and international shipping) of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, as well as 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.
- 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's 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 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 confirmed that they are well aligned with MHI's Transition Strategy. Through the evaluation, DNV confirmed that the implementation plan based on the Transition Strategy is credible, ambitious, and achievable.

CTF-2. Business model environmental materiality

- MHI's Transition efforts include not only emission reductions from its own business activities (Scope 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 CO₂ high-emission 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 Ministry of Economy, Trade and Industry and Ministry of Land, Infrastructure, Transport and Tourism's roadmaps for transition by sector (power sector, gas sector, iron and steel sector, chemical sector, and international shipping). 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.



- Inked to the activities of MHI's core business and to activities that contribute to the reduction of CO₂ 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 GRI standards*1, ISO 26001, SASB, TCFD, etc., and will contribute to significant environmental improvement benefits (impact) from qualitative and quantitative perspectives.
 - *1: Global Reporting Initiative (an international standard providing ESG-related reporting, management and analysis methods)

CTF-3. Transition is science-based including targets and pathways

- 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 CO₂ 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.

Table-5 MHI Transition Targets

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

^{*1:} The calculation standard is based on the GHG Protocol.

- *2: The calculation standard is based on the GHG Protocol. However, we also account for reductions achieved by CCUS as an MHI original index.
- Reference: The short-term target is set in the MHI Group's Fifth Environmental Target (FY2021-FY2023) as "a 9% improvement in CO_2 emissions per unit of production from offices and plants in FY2023 compared to FY2014".
- MHI's CO₂ emission reductions include not only emission reductions from its own business activities (Scope 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 CO₂ many emitting businesses, MHI's Transition efforts directly support the transition of society as a whole, including its own.



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, the 2021 Medium-Term Business Plan intends to invest 180 billion yen
 in growth areas, including decarbonization, by 2023, and encompasses projects to
 be implemented with green/transition financing.
- 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 through CTF-3.

(2) Findings and opinions of DNV against the four common elements of GBP/GBGLs and GLP/GLGLs

*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 (bond/loan).

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/GBGLs and GLP/GLGLs, and as transition projects that the projects meet the requirements of the Transition Strategy and related frameworks (CTF-H and CTF-BG).

Green/Transition Finance Eligible business/project candidates and eligibility criteria are listed in Tables-6 and 7, respectively.

Table-8 also shows the details of six projects that are planned to use the proceeds of this Green/Transition Bond (to be issued after April 2022).



Table-6: Green Projects*1

Eligible business and/or projects	Eligibility Criteria
Renewable energy	Wind power (wind power plants)Geothermal power (geothermal power plants)
Clean energy	 Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen firing) Ammonia gas turbine (ammonia power generation businesses and/or the projects 100% ammonia firing) Hydrogen/ammonia production (green) Steam power (conversion to 100% ammonia firing) Gas engines for power generation (100% hydrogen firing)

^{*1:} Projects that qualify as green projects can be incorporated as green projects in future green bond issues. Green projects are also permitted within the CTFBG to be incorporated as part of a transition bond issue.

Table-7: Transition Projects*2

Eligible business and/or projects	Eligibility Criteria
Decarbonize existing infrastructure	 Hydrogen gas turbine (co-firing) Ammonia gas turbine (co-firing) LNG-fueled high-efficiency gas turbine Steam power (conversion to ammonia co-firing) Gas engine for power generation (hydrogen co-firing) Material handing (high efficiency and fuel cell powered)
Build a hydrogen solutions ecosystem	 Hydrogen production (blue or turquoise, etc.) Ammonia production (blue or turquoise, etc.) Hydrogen compressors (for hydrogen production, transport and storage, etc.) Metal machinery (hydrogen-reduced ironmaking, etc.)
Build a CO ₂ solutions ecosystem	 CO₂ capture and storage CO₂ transport (liquefied CO₂ carries etc.)

^{*2} Some projects classified as transition projects at this time may become green projects through the application/applied of future technological innovations. (e.g., application of green fuels/production processes, achieving performance that meets CO₂ emission standards as green projects, etc.).



Table-8 Green/Transition Bonds (to be issued after April 2022) Overview of the six projects

Eligible business	Eligibility Criteria	Project Overview	
and/or projects Decarbonize existing infrastructure	Hydrogen gas turbine (100% firing/co-firing)	 Project Name: Development of Hydrogen Powered GTCC Project Overview: Development of 100% hydrogen firing and co-firing gas turbine, combustion testing at actual pressure Period: ~FY 2030 (planned) Environmental benefits: CO₂ Reduction rate from existing facilities (intensity): -10% for 30% (vol%) hydrogen co-firing, -100% for 100% hydrogen firing 	Hydrogen gas turbine schematic diagram
Decarbonize existing infrastructure	Steam power (conversion to ammonia co-firing)	 Project Name: Development and Demonstration of High Ammonia Co-firing Technology in Coal Boilers Project Overview: Development of an ammonia burner suitable for coal boilers and demonstration operation using actual equipment New Energy and Industrial Technology Development Organization (NEDO) "Green Innovation Fund Project/Project for Establishment of Fuel Ammonia Supply Chain Period: FY2021~FY2028 (planned) Environmental benefits: CO2 Reduction rate from existing facilities (intensity): -20% in case of 20% ammonia co-firing 	Conceptual diagram of ammonia co-firing in a coal boiler
Decarbonize existing infrastructure	Gas engine for power generation (100% hydrogen firing/co-firing)	 Project Name: Development of Hydrogen Gas Engine Technology Project Overview: Development for practical use of hydrogen engines based on conventional diesel and gas engines Period: FY2019 - FY2030s (planned) Environmental benefits: CO₂ Reduction rate from existing facilities (intensity): -10% in case of 30% hydrogen co-firing (volume ratio), -100% for 100% hydrogen firing 	Internal schematic diagram of hydrogen gas engine



Eligible business Eligibility Criteria and/or projects		Project Overview		
Build a hydrogen solutions ecosystem	Hydrogen production (blue or turquoise, etc.)	 Project Name: Hydrogen Power Generation Demonstration Facility "Takasago Hydrogen Park" Project Overview: Development, verification and manufacturing of 100% hydrogen firing hydrogen gas turbine for early commercialization (Takasago City, Hyogo Prefecture "Takasago Hydrogen Park") Period: FY2021 - FY2023 (planned) Environmental benefits: Project overview and progress will be reported. 	Planned completion of Takasago Hydrogen Park	
Build a hydrogen solutions ecosystem	Metals machinery (hydrogen- reduced ironmaking, etc.)	 Project Name: Research and Development of Hydrogen-Reduced Ironmaking Technology Project Overview: Hydrogen-based Fine Ore Reduction (HYFOR): Associated development and engineering work for the demonstration of industrial prototype plant for HYFRO, a new direct reduction process based on fluidized bed technology that allows the direct usage of iron ore (ultra) fines without any agglomeration step. As a transition technology, HYFOR can be operated with natural gas, H2-rich gas and 100% pure H2. Period: FY2021 - FY2025 (planned) Environmental benefits: Reduction rate of CO₂ emission from conventional products:-80% or more 	Hydrogen-reduced ironmaking process flow	
Build a CO2 solutions Ecosystem	CO ₂ capture and storage	 Project Name: Improve performance of CO₂ capture technologies and increase applications of CO₂ from variety of emission sources. Project Overview: Improved CO₂ Capture Process Performance (enhancement of amine-based solvents (KS-1, KS-21, etc.) as our core technologies), expansion of product lineup from CO₂ capture plant to compact CO₂ capture system, etc. 	CO ₂ capture process flow	



•	Period: ~FY2030 (may continue	
	beyond 2030)	
	Environmental benefits: CO ₂ capture rate from flue gas: 90% and above (captured CO ₂ Purity 99.9% or above)	

DNV has confirmed that MHI plans to use all proceeds, excluding expenses, from the entire amount raised through green/transition financing 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 are representative projects that contribute to business transformation as exemplified by CTFH/CTFBG, GBP/GBGLs, and GLP/GLGLs, 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-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 a pre-determined framework for environmental and social risk reduction efforts 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
 - Policy on Human Rights
- > 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

Evaluation and Selection

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

Information on Responsibilities and Accountability

\times	Evaluation / Selection criteria subject to	\boxtimes	In-house assessment
	external advice or verification		
	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.

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. Vouchers 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 3 years of fundraising based on the framework, 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 financing is executed under this framework, it will be disclosed in statutory and other documents prior to execution.

Tracking of Proceeds:

\boxtimes	Some or all of the proceeds by green bonds that are planned to be allocated are systematically distinguished or tracked by the issuer.		
	distilliguished of tracked by the issuer.		
	Disclosure of intended types of temporary	, investr	nent instruments for unallocated proceeds
\boxtimes	Other (please specify): Unallocated proce	eds are	managed in cash or cash equivalents
Additi	ional disclosure:		
	Allocations to future investments only		Allocations to both existing and future investments
\boxtimes	Allocation to individual		Allocation to a portfolio of disbursements
	disbursements		
	Disclosure of portfolio balance of		Other (please specify):
	unallocated proceeds		



GBP/GLP-4. Reporting

DNV has confirmed that the issuer will provide reporting (annual reporting) 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. We also 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>

- Status of allocation to eligible businesses and/or projects, overview with up-to-date progress
- Amount or share of unallocated proceeds, allocation schedule, and the method to manage unallocated proceeds
- Ratio of new financing to refinancing

<Environmental benefits>

Disclose the outline (Including progress of research and development, operation, etc.) of the project and the expected environmental benefits (e.g., tons- CO_2 /year, etc. (reduction effect is calculated based on the number of facilities installed, number of facilities sold, or basic unit (g- CO_2 /kWh), etc.)), within the scope of confidentiality and to the extent practicable, and taking into account the characteristics of the project.

• Indicators, etc. listed in Table-9 to Table-11 to the extent practicable

Table-9: Green Projects

Eligible business and/or projects	Eligibility Criteria	Reporting Contents
Renewable energy	Wind power (wind power plants)	 Information on their progress in R&D (such as the outline of projects participated in) Annual power generation of renewable energy (MWh) Annual CO₂ reduction (tons)
	Geothermal power (geothermal power plants)	 Information on their progress in R&D (such as the outline of projects participated in) Annual power generation of renewable energy (MWh) Annual CO₂ reduction (tons)
Clean Energy	Hydrogen gas turbine (hydrogen power generation businesses	 Information on their progress in R&D (such as the outline of projects participated in)



and/or projects for 100% hydrogen firing)	 Annual CO₂ reduction (tons) by products sold (including implementation within MHI)
Ammonia gas turbine (ammonia power generation businesses and/or the projects 100% ammonia firing)	 Information on their progress in R&D (such as the outline of projects participated in) Annual CO₂ reduction (tons) by products sold (including implementation within MHI)
Hydrogen/ammonia production (green)	 Information on their progress in R&D (such as the outline of projects participated in) Amount of hydrogen/ammonia produced
Steam power 100% ammonia firing)	 Information on their progress in R&D (such as the outline of projects participated in) Annual CO₂ reduction (tons)
Gas engines for power generation (100% hydrogen firing)	 Information on their progress in R&D (such as the outline of projects participated in) Annual CO₂ reduction (tons) by products sold (including implementation within MHI)

Table-10: Transition Projects

Eligible business and/or projects	Eligibility Criteria	Reporting Contents
Decarbonize existing infrastructure	 Hydrogen gas turbine (cofiring) Ammonia gas turbine (cofiring) LNG-fueled high-efficiency gas turbine Steam power (conversion to ammonia co-firing) Gas engine for power generation (hydrogen cofiring) Material handing (high efficiency and fuel cell powered) 	 Information on their progress in R&D (such as the outline of projects participated in) Hydrogen/ammonia co-firing ratio (%) Annual CO₂ (tons) reduction by products sold (including implementation within MHI)
Build a hydrogen solutions ecosystem	 Hydrogen production (blue or turquoise, etc.) Ammonia production (blue or turquoise, etc.) Hydrogen compressors (for hydrogen production, transport and storage, etc.)) Metal machinery (hydrogen-reduced ironmaking, etc.) 	 Information on their progress in R&D (such as the outline of projects participated in) Annual CO₂ (tons) reduction by products sold (including implementation within MHI) Hydrogen/ammonia production (tons)
Build a CO ₂ solutions ecosystem	 CO₂ capture and storage CO₂ transport (liquefied CO₂ carries, etc.) 	 Information on their progress in R&D (such as the outline of projects participated in) Annual CO₂ (tons) reduction by products sold (including



implementation within MHI)

Table-11 Calculation Method of Environmental Benefits (Green/Transition Bonds to be issued this time. Target 6 projects)

Eligible			Project Overview			
business and/or projects	Eligibility Criteria	Project Name	Environmental effects			
Decarbonize existing infrastructure	Hydrogen gas turbine (100% firing /co- firing)	Development of Hydrogen GTCC	Environmental benefits: CO_2 Reduction rate from existing facilities (intensity): -10% for 30% (vol%) hydrogen co-firing, -100% for 100% hydrogen firing Calculation Method: In case of 30% hydrogen co-combustion, 10% is calculated on a basic unit (g- CO_2 /kWh) basis.			
Decarbonize existing infrastructure	Steam power (conversion to ammonia co- firing)	Development and Demonstration of High Ammonia Co-firing Technology in Coal Boilers	Environmental benefits (indicator): CO ₂ reduction rate from existing facilities (intensity) -20% in case of 20% ammonia co-firing Calculation Method: Calculate reductions on a calorie basis			
Decarbonize existing infrastructure	Gas engine for power generation (100% hydrogen firing/co-firing)	Development of Hydrogen Gas Engine Technology	Environmental benefits (indicator): CO ₂ Reduction rate from existing facilities (intensity): -10% in case of 30% hydrogen co-firing (volume ratio), -100% for 100% hydrogen firing Calculation Method: In case of 30% hydrogen co-firing (volume ratio), 10% is calculated on a basic unit (g-CO2 /kWh) basis.			
Build a hydrogen solutions ecosystem	Hydrogen production (blue or turquoise, etc.)	Hydrogen Power Generation Demonstration Facility "Takasago Hydrogen Park"	Environmental benefits (Indicators): Project Overview and progress to be reported			
Build a hydrogen solutions ecosystem	Metals machinery (hydrogen- reduced ironmaking, etc.)	Research and Development of Hydrogen-reduced ironmaking Technology	Environmental benefits (Indicators): Reduction rate of CO₂ by more than ▲80% compared with the conventional system. Calculation method: Reductions are calculated on a weight basis.			
Build a CO ₂ solutions ecosystems	CO ₂ capture and storage	Improve performance of CO ₂ capture technologies and increase applications of CO ₂ from variety of emission sources.	Environmental benefits: CO ₂ capture rate from flue gas: 90% and above (captured CO ₂ Purity 99.9% or above) Calculation method: Calculate recovery rate on a volumetric basis			



use o	i Proce	eas reporting:		
	Project-	by-project		On a project portfolio basis
	Linkage to individual bond(s)			Other (please specify) : Eligible Criteria Units
	Infor	mation reported:		
	\boxtimes	Allocated amounts		$\ \square$ GB refinanced share of total investment
		Other (please specify):		
	Frequ	ency:		
	\boxtimes	Annual		□ Semi-annual
		Other (please specify):		
Impa	act repo	orting (Environmental Impac	t):	
	Project-	-by-project		On a project portfolio basis
	Linkage	to individual bond(s)	\boxtimes	Other (specify): Eligible Criteria Units
	Frequ	ency:		
	\boxtimes	Annual		☐ Semi-annual
		Other (please specify):		
	Info	rmation reported (expected or	ex-po	ost):
		GHG Emissions / Savings		☐ Energy savings
		Other ESG indicators (please specify):	prod sold	progress, amount of electricity generated, amount of duction, annual CO_2 emissions reductions from products (including in-house installations), annual CO_2 emission action
Mean	s of Dis	sclosure		
		ation published in financial report ated Report)		Information published in sustainability report
	Informa	ation published in ad hoc documents	\boxtimes	Other (please specify): on MHI website
	Reporti	ng reviewed (if yes, please specify wh	ich pa	rts of the reporting are subject to external review)



VII. 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 and Green/Transition Bond issued by MHI 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/GBGLs, GLP/GLGLs.

DNV Business Assurance Japan K.K.

March 18, 2022

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[&]quot;provide an investment opportunity with transparent sustainability credentials"

[&]quot;enable capital-raising and investment for new and existing projects with environmental benefits"



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 Financing Eligible Projects Candidates

The projects listed in the table are candidate projects that have been evaluated for eligibility at the time of pre-issue eligibility assessment (as of February 2022). 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 eligible project (Eligible Criteria) as per its labelling and reported in the pre-financing or post-financing reports.

If additional green/transition projects are included, eligibility will be evaluated 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 project*1

Eligible business and/or projects Candidate	Eligibility Criteria (Green Project Overview)	Alignment with SDGs	
Renewable energy	Wind power (wind power plants)	7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION	
	Geothermal power (geothermal power plants)		
Clean energy	 Hydrogen gas turbine (hydrogen power generation businesses and/or projects for100% hydrogen firing) 	AND INFRASTRUCTURE 12. Responsible Production and	
	Ammonia gas turbine (ammonia power generation businesses and/or the projects 100% ammonia firing)	Consumption 13. CLIMATE ACTION	
	· Hydrogen/ammonia production (green)	15. CLIMATE ACTION	
	Steam power (conversion to 100% ammonia firing)		
	Gas engines for power generation (100% hydrogen firing)		

^{*1}Projects that qualify as green projects can be incorporated as green projects in future green bond issues. Green projects are also permitted within the CTFBG to be incorporated as part of a transition bond issue.



Transition Project*2

Eligible business and/or projects Candidate	Eligibility Criteria (Transition Project Overview)	Alignment with SDGs
Decarbonize existing infrastructure Build a hydrogen solutions	 Hydrogen gas turbine (co-firing) Ammonia gas turbine (co-firing) LNG-fueled high-efficiency gas turbine Steam power (conversion to 100% ammonia firing) Gas engine for power generation (hydrogen co-firing) Material handing (high efficiency and fuel cell powered) Hydrogen production (blue or turquoise, etc.) 	7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE 12. Responsible Production and Consumption 13. CLIMATE ACTION
ecosystem Build a CO ₂ solutions ecosystem	 Ammonia production (blue or turquoise, etc.) Hydrogen compressors (for hydrogen production, transport, storage, etc.)) Metals machinery (hydrogen-reduced ironmaking, etc.) CO₂ Capture and Storage CO₂ transport (liquefied CO₂ carries, etc.) 	

^{*2} Some projects classified as transition projects at this time may become green projects through the application/applied of future technological innovations. (e.g., application of green fuels/production processes, achieving performance that meets CO₂ emission standards as green projects, etc.).



Schedule-2 Climate Transition Finance Eligibility Assessment Protocol

The following checklists (1-4) are DNV evaluation procedures created for MHI Green/Transition Finance Framework and Transition Bond Eligibility Assessment, based on the disclosure requirements of the CTFH and 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", "Investor" to "Borrower/Fundraiser", "Lender" in the context in the following requirements.

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1	Issuer's Climate Transition Strategy and Governance	The financing purpose should be for enabling an issuer's climate change strategy. A 'transition' label applied to a debt financing instrument should serve to communicate the implementation of an issuer's corporate strategy to transform the business model in a way which effectively addresses climate-related risks and contributes to alignment with the goals of the Paris Agreement. Suggested information and indicators • A long-term target to align with the goals of the Paris Agreement (e.g. the objective of limiting global warming ideally to 1.5℃ and, at the very least, to well below 2℃);	Confirmed documents - Framework - Mission Net Zero - 2021 Business Plan - International Energy Agency World Energy Outlook - Ministry of Economy, Trade and Industry Roadmap (Power, Gas, Iron and Steel, Chemicals) - Ministry of Land, Infrastructure, Transport and Tourism Roadmap (International Shipping) - MHI Group Integrated Report 2021	MHI has established a 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 has set "Realization of a Green Society" as one of its three goals for 2030 as a key theme, and has set in 2021 Business Plan two growth areas: "Energy Transition," which aims to decarbonize the energy supply side, and " New Mobility & Logistics," which will realize decarbonization, energy conservation, and manpower savings on the energy demand side.



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		 Relevant interim targets on the trajectory towards the long-term goal; Disclosure on the issuer's levers towards decarbonisation, and strategic planning towards a long-term target to align with the goals of the Paris Agreement; Clear oversight and governance of transition strategy and, Evidence of a broader sustainability strategy to mitigate relevant environmental and social externalities and contribute to the UN Sustainable Development Goals. 	Interviews with stakeholders	"MISSION NET ZERO" sets a long-term goal of Net Zero in 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 sectoral roadmaps for transition (power sector, gas sector, iron and steel sector, chemical sector, and international shipping) of the Ministry of Economy, Trade and Industry and Ministry of Land, Infrastructure, Transport and Tourism, it also incorporates a plan of action to achieve less than 2°C using the TCFD. In addition, if it becomes necessary to review efforts to achieve sustained emission reductions in the future, it is planned to be implemented 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. 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". MHI's approach to sustainability promotion based on this concept, MHI aims to address materiality through our business activities and contribute broadly to



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				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 "providing energy solutions to enable a carbon neutral world". Based on the framework and evaluation of "MISSION NET ZERO" and the Implementation Plan, DNV confirmed that they are well aligned with MHI's Transition Strategy. Through the evaluation, DNV confirmed that the implementation plan based on the Transition Strategy is credible, ambitious, and achievable.
2	Business model environmental materiality	The planned climate transition trajectory should be relevant to the environmentally-material parts of the issuer's business model, taking into account potential future scenarios which may impact on current determinations concerning materiality.	Confirmed documents - Framework - Mission Net Zero - 2021 Business Plan - International Energy Agency World Energy Outlook - Ministry of Economy, Trade and Industry Roadmap (Power, Gas, Iron and Steel, Chemicals) - Ministry of Land, Infrastructure, Transport and Tourism Roadmap (International Shipping)	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 greenhouse gas emissions (FY2020) are shown below. SCOPE1,2: 550,000 t-CO ₂ SCOPE3: 9.34 million t-CO ₂ (Category 1 (purchased products and services): 8.8 million t-CO ₂ , Other categories 2-7 were calculated and Category 11 (use of products sold) is under consideration for calculation) MHI's Transition efforts include not only emission reductions from its own business activities (Scope 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



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
			- MHI Group Integrated Report 2021 - MHI Group ESG DATABOOK Interviews with stakeholders	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 CO2 many emitting businesses, MHI's Transition efforts directly support the transition of society as a whole, including its own. MHI's transition (Transition) Roadmap is based on the International Energy Agency's World Energy Outlook (It is also well aligned with the sectoral roadmaps for transition (power sector, gas sector, iron and steel sector, chemical sector, and international shipping) of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism. In other words, it is intended to enable these 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 CO2 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 GRI standards*1, ISO 26001, SASB, TCFD, etc., and will contribute to significant environmental improvements (impact) in



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				qualitative and quantitative terms. The following is a summary of the results of the study. *1: International standard developed by the Global Reporting Initiative to provide ESG-related reporting, management, and analysis methodologies.
3	Climate transition strategy to be science- based including targets and pathways	Issuer's climate strategy should reference science-based targets and transition pathways. The planned transition trajectory should: • be quantitatively measurable (based on a measurement methodology which is consistent over time); • be aligned with, benchmarked or otherwise referenced to recognized, science-based trajectories where such trajectories exist; • be publicly disclosed (ideally in mainstream financing filings), include interim milestones, and; • be supported by independent assurance or verification Suggested information and indicators	Confirmed documents - Framework - Mission Net Zero - 2021 Business Plan - International Energy Agency World Energy Outlook - Ministry of Economy, Trade and Industry Roadmap (Power, Gas, Iron and Steel, Chemicals) - Ministry of Land, Infrastructure, Transport and Tourism Roadmap (International Shipping) - MHI Group Integrated Report 2021 - project list - CO2 Reduction Effects Estimated Results	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. 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 set voluntarily based on the TCFD and other initiatives for sustainable CO ₂ emission reductions, and they are consistent with the World Energy Outlook of the International Energy Agency, which serves as a benchmark, and the policies of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism. Specifically, MHI has established the following goals for transitions Target Reduce CO ₂ Reduce CO ₂ emissions across MHI's value chain



Mitsubishi Heavy Industries Green/Transition Finance Framework Second Party Opinion

Ref.	Criteria	Requirements	Work Undertaken	DNV Finding		amework Second Party Opinion
		Short, medium, and long-term greenhouse gas reduction targets aligned with Paris Agreement; Baseline Scenario utilised, and methodology applied (e.g. ACT, SBTi, etc.); Greenhouse gas objectives covering all scopes (Scope 1, 2 and 311); and, Targets formulated both in intensity and absolute terms	Interviews with relevant parties	2040 *1: The calculation of complementation of comp	ulation standard is wever, we also acc CCUS as an MHI of the short-term targ. Environmental Ta vement in CO2 emore offices and plamission reductions om its own busines and activity other companies. To an important initials and strategies for ds, as a company thems, facilities, and her CO2 many emit forts directly supponcluding its own.	get is set in the MHI rget (FY2021-FY2023) as hissions per unit of nts in FY2023 compared include not only emission as activities (Scope 1 and hies that contribute to the This will contribute to the and demand-side carbon hitve indicated in the decarbonization in Japan. Athat manufactures and dequipment for energy, tting businesses, MHI's bort the transition of society



Ref.	Criteria	Requirements	Work Undertaken	dustries Green/Transition Finance Framework Second Party Opinion DNV Findings
4	Implementation transparency	Market communication in connection with the offer of a financing instrument which has the aim of funding the issuer's climate transition strategy should also provide transparency to the extent practicable, of the underlying investment program including capital and operational expenditure. This may include R&D-related expenditure where relevant, and details of where any such operating expenditure is deemed 'non-Business as Usual', as well as other relevant information indicating how this program supports implementation of the transition strategy, including details of any divestments, governance and process changes. Suggested information and indicators • Disclosure on the percentage of assets/revenues/expenditures/divestments aligned to the various levers outlined in Element 1 above; • Capex roll-out plans consistent with the overall strategy and climate science	Confirmed documents - Framework - Mission Net Zero - 2021 Business Plan - International Energy Agency World Energy Outlook - Ministry of Economy, Trade and Industry Roadmap (Power, Gas, Iron and Steel, Chemicals) - Ministry of Land, Infrastructure, Transport and Tourism Roadmap (International Shipping) - MHI Group Integrated Report 2021 - project list - CO2 Reduction Effects Estimated Results Interviews with relevant parties	DNV confirmed that MHI's investment and deployment plans related to the Transition Strategy include agreements for future investments and expenditures. Specifically, the 2021 Business Plan plans to invest 180 billion yen in growth areas, including decarbonization, by 2023, and encompasses projects to be implemented with green/transition financing. 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 CTF-3. MHI plans to allocate to R&D, business development, operations, operations, and other related expenditures for the nominated transition eligible projects shown in Schedule-1. Through the assessment, DNV determined 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 checklist below (GBP/GLP-1 to GBP/GLP-4) is a DNV evaluation procedure created for MHI Green/Transition Finance (Bond & Loan) Eligibility Assessment (Bond & Loan with specific use of proceeds) based on the requirements of GBP/GBGLs and GLP/GLGLs. "Confirmed documents" in the "Work Undertaken" includes documents inside 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 loan) that specifies the use of proceeds based on CTFH and CTFBG, so please read as the meaning of the transition as appropriate.

GBP/GLP-1 Use of Proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1a	Types of funds	The types of green bonds are classified into one of the following types defined by GBP. · (Standard) Green/transition Bond · Green/transition Revenue Finance · Green/transition Project	Confirmed documents - Frameworks Interview with stakeholders	Through the evaluation work, DNV confirmed that MHI Green/Transition Finance (bond/loan) fall into the following categories. Green/Transition Bonds/Loans
		Finance Other		
1b	Green/transition Project Classification	The key to a green/transition bond is that the proceeds will be used for a green project, which should be properly stated in the legal documents relating to the security.	Confirmed documents - framework - project list - CO ₂ Reduction Effects Estimated Results	DNV has confirmed that the MHI Green/Transition Financing 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 financing categories and eligible project candidates listed in the table below and Schedule-1 have been evaluated to meet the Transition Strategy, and the proceeds from Green/Transition financing



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings	ansition Finance Framework Second Party Opinion
			- Amendment Shelf Registration Statement	Green/Transition fi	fund one or more of the candidate nance eligible projects. If a transition re-selected prior to financing, it will be ocuments.
			Interview with stakeholders	_	sment, DNV concludes that the nominated gible project will provide tangible and truly efits.
				Table MHI Green/T Category	ransition Finance Eligible Project
					Green project
				Eligible business and/or projects	Eligibility Criteria
				Renewable energy	· Wind power (wind power plants)
					Geothermal power (geothermal power plants)
				Clean energy	Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen firing)
					Ammonia gas turbine (ammonia power generation businesses and/or the projects 100% ammonia firing)
					Hydrogen/ammonia production (green)
					Steam power (conversion to 100% ammonia firing)
					Gas engines for power generation (100% hydrogen firing)
					Transition Project



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings	
				Eligible business and/or projects	Eligibility Criteria
				Decarbonize existing infrastructure	 Hydrogen gas turbine (co-firing) Ammonia gas turbine (co-firing) LNG-fueled high-efficiency gas turbine Steam power (conversion to 100% ammonia firing) Gas engine for power generation (hydrogen co-firing) Material handing (high efficiency and fuel cell powered)
				Build a hydrogen solutions ecosystem	 Hydrogen production (blue or turquoise, etc.) Ammonia production (blue or turquoise, etc.) Hydrogen compressors (for hydrogen production, transport, storage, etc.) Metals machinery (hydrogen-reduced ironmaking, etc.)
				Build a CO ₂ solutions ecosystem	 CO₂ Capture and Storage CO₂ transport (liquefied CO₂carries, etc.)
1c	Environmental Benefits	All green projects to which the funds are used should have clear environmental benefits, the effects of which should be assessed by the issuer and, where possible, quantitatively demonstrated.	Confirmed documents - framework - project list - CO ₂ Reduction Effects Estimated Results	and decarbonization the classifications for each shown in 1b, which could based goals. The environment	ects are projects that contribute to low nrough 2 business, 3 project of the green/transition categories ontribute to MHI's Transition Strategy-ronmental benefits are CO ₂ emission quantitatively evaluated by the issuer.



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
			Interview with stakeholders	Before the execution 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 ₂ emission reductions in the annual reporting.
1d	Refinancing rate	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 ₂ Reduction Effects Estimated Results Interview 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 in advance whether the proceeds will be allocated to new investment or refinancing before the financing is executed, it will be disclosed in legal 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	Green bond issuers should provide an overview of the process of qualifying projects for which green bond funding will be used. This includes (but is not limited to): •The process by which the issuer determines that the project in question is included in the business category of a qualified green project. • Creation of criteria for eligibility of projects for which green bond funding will be used • Environmental sustainability goals	Documents reviewed	DNV confirmed that the issuer has a process document that determines the eligibility of the project for which the green/transition financing proceeds are to be allocated and that it is clearly outlined in the framework.
2b	Issuer's Environment al and Social Governance Framework	In addition to criteria and certifications, the information published by issuers regarding the green bond process also considers the quality of performance of the issuer's framework and environmental sustainability.	Documents reviewed	When selecting green/transition projects, the Issuer considers compliance with environmental laws, ordinances, and regulations, as well as clear environmental benefits such as CO ₂ reductions 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
3a	Tracking procedure-1	The net proceeds from of Green bonds 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 Project.	Confirmed documents	DNV has confirmed that the proceeds related to the proceeds by the Green/Transition financing are traceable to the issuer's internal management systems, etc., and through the assessment, DNV confirmed that the systems and documents actually used are verified and certified accordingly.
3b	Tracking procedure-2	During the green bond redemption period, the balance of funds raised that is being tracked should be adjusted at regular intervals to match the amount allocated to eligible projects undertaken during that period.	Confirmed documents	DNV confirmed that the issuer plans to review the balance of the green/transition financing on a regular basis (at least once a year) during the period between the execution of the green/transition financing and its redemption or repayment, such as through the internal control system described in 3a.
3c	Temporary holding	If no investment or payment has been made in a qualified green 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 Fund 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 unallocated proceeds balances 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 bond proceeds have been allocated, taking into account the following: A list of each project should be provided. -Confidentiality and competitive considerations -Outline of each project, expected sustainable environmental and social effects	Confirmed documents	DNV confirmed that the issuer will conduct Green/Transition financing reporting (annual reporting) at least until the proceeds are allocated, disclosing information on the status of the allocation 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, sale or retirement, etc.) will be reported in a timely manner or in the reporting. Reporting will be published on the website. <allocation status=""> Status of allocation to eligible businesses and/or projects, overview with up-to-date progress Amount or share of unallocated proceeds, allocation schedule, and the method to manage unallocated proceeds Ratio of new financing to refinancing Environmental benefits> Disclose the outline (Including progress of research and development, operation, etc.) of the project and the expected environmental benefits (e.g., tons-CO₂/year, etc. (reduction effect is calculated based on the number of facilities installed, number of facilities sold, or basic unit (g-CO₂/kWh), etc.)), within the scope of confidentiality and to the extent practicable, and taking into account the characteristics of the project. The currently planned reporting details for the green/transition project to be implemented at this time are described in the GBP/GLP-4. Reporting section of this document.</allocation>



Schedule-4 Basic Guidelines on Climate Transition Finance Eligibility Checklist

The checklists below (CTF-1 ~ CTF-4) are based on the four "Disclosure Elements" which indicated in the "Basic Guidelines on Climate Transition Finance (CTF)" established by the Financial Services Agency, Ministry of Economy, Trade and Industry, and Ministry of the Environment in May 2021.

According to the CTF, "disclosure elements" are classified into the following three categories. Should: \circ recommend: \circ be considered/possible: \triangle These expressions are used in the following context.

- Items described with the word "should" are basic elements that financial instruments labeled as transition finance are expected to have.
- Items described with the word "recommended" are elements that financial instruments labeled as transition finance are optimally recommended to have under these Guidelines although instruments which do not have these items can also be labeled as "transition".
- Items described with the word "be considered" or "possible" are elements that these Guidelines provides as examples and interpretations although it is not considered problematic even if financial instruments labeled as transition finance do not have them.

There is a supplementary explanation in the margin of each checklist for the annotations in the disclosure elements.

The number $/01/.../02/\sim/18/$ listed in the "Work Undertaken" are documents confirmed through the eligibility evaluation work. Details (document name) are shown in Appendix. In addition to the confirmed documents, the "Work Undertaken" includes the case where the information obtained through discussions and interviews with the issuer is used as evidence.

CTF-1 Fundraiser's Climate Transition Strategy and Governance

Ref	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
0	1-a)	Financing through transition finance should aim to implement or incentivize the achievement of transition strategies ⁹ . Such strategies should incorporate a long-term target to align with the goals of the Paris Agreement, relevant interim targets on the trajectory towards the long-term goal, disclosure on the levers towards decarbonization, and fundraiser's	Yes No Not Applicable	Confirmed documents: /01//02//03//04//12/ /13//14//15//16//17/ Interviews with stakeholders	MHI's financing through Green/Transition finance is intended to help the company achieve its transition strategy in line with the International Energy Agency's World Energy Outlook, which aims to align with the goals of the Paris Agreement, and the low-carbon strategy set forth in the sectoral roadmaps of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism. MHI has developed a transition strategy as a transition roadmap, which incorporates short-term targets, medium-



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Fin	dings	
		strategic planning.			a plan to transition	introduce technologie	lan for decarbonization (i.e., es that will contribute to the HI's Transition Strategy is
					Target year 2030	Reduce CO ₂ emissions across MHI Group Scope 1&2*1	Reduce CO ₂ emissions across MHI's value chain Scope 3*2 + reductions from CCUS \$\times 50\%\$ (compared to 2019)
					2040	2014) Net Zero	Net Zero
					*1: The *2: The by Reference Fire go	calculation standard is calculation standard is calculation standard is owever, we also account CCUS as an MHI origue: The short-term tangeth Environmental Tangeth	based on the GHG Protocol. based on the GHG Protocol. int for reductions achieved inal index. get is set in the MHI Group's get (FY2021-FY2023) as "a 2 emissions per unit of
(△)	1-b)	A transition strategy should serve to explicitly communicate the implementation of an issuer's strategy to transform the business model in a way which effectively addresses climate-related risks and contributes to achieving the goals of the Paris Agreement ¹⁰ . Transformation of a business model is not limited to initiatives as an extension of existing	Yes No Not Applicable	Confirmed documents: /01//02//03//04//05/ /06//12//13//14//15/ /16//17/ Interviews with stakeholders	Internati the road Industry and Toui includes reduction neutraliti as a key	maps of the Ministry of and Ministry of Land, rism's sector roadmap initiatives that seek to as in the contribution to you both the supply a	World Energy Outlook and f Economy, Trade and Infrastructure, Transport s. MHI's Transition Strategy achieve significant



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings		
		businesses but can also be transformation based on various other perspectives. It includes fuel conversion			-	atives include the following (see table below). reen/Transition Finance Eligible Project	
		that achieves significant carbon and GHG reduction benefits, introduction of innovative technologies, improvement of / changes in manufacturing processes and products, and		Eligible business and/or project	Eligibility Criteria		
		development and provision of products			Renewable	· Wind power (wind power plants)	
		and services in new fields.	nd services in new fields.		energy	Geothermal power (geothermal power plants)	
					Clean Energy	Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen firing)	
					Ammonia gas turbine (ammonia power generation businesses and/or the projects 100% ammonia firing)		
						· Hydrogen/ammonia production (green)	
						Steam power (conversion to 100% ammonia firing)	
						· Gas engines for power generation (100% hydrogen firing)	
						Transition Project	
					Eligible business and/or projects	Eligibility Criteria	



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					Decarbonize existing infrastructur e LNG-fired high-efficiency gas turbine e Steam power (conversion to 100% ammonia firing) Gas engine for power generation (hydrogen co-firing) Material handing (high efficiency and fuel cell powered)
					Build a hydrogen solutions ecosystem Hydrogen production (blue or turquoise, etc.) Hydrogen compressors (for hydrogen production, transport, storage, etc.) Metals machinery (hydrogen-reduced ironmaking, etc.)
					Build a CO ₂ · CO ₂ Capture and Storage · CO ₂ transport (liquefied CO ₂ carries, etc.) ecosystem
0	1-c)	The implementation of a transition strategy assumes cases where it affects society and environment other than climate change, such as employment or stable provision of products and services, through transformation of a business model. In such cases, it is recommended that the fundraiser also takes into consideration the impact of business innovations to society and environment other than climate change.	Yes No Not Applicable	Confirmed documents: /01//05//06//09/ Interviews with stakeholders	DNV confirmed that at this time there are no additional significant social or environmental impacts associated with the implementation of MHI's Transition Strategy. DNV has also confirmed that procedures are in place to ensure that the project evaluation and selection process does not conflict with any exclusion criteria (e.g., human rights, environmental or other social issues). However, in the implementation of the project, consideration and measures for social and environmental impacts based on laws, regulations, ordinances, and the company's own standards are implemented as part of MHI's standard business and operational management processes.



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
© (△)	1-d)	Climate change-related scenarios ¹¹ should be referenced in developing transition strategies. The pathway to transition should be planned for respective sector and regions of individual fundraiser, who may generally be placed in a different starting point and pathway to transition.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ /07//12//13//14//15/ /16//17/ Interviews with stakeholders	MHI's transition strategy is built on the International Energy Agency's World Energy Outlook, the sector roadmap of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, and the use of TCFD guidance. MHI is building a transition strategy that embodies 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, which clarify criteria, pathways and targets for CO ₂ emission reductions.
0	1-e)	Transition strategies and plans must be highly credible in terms of their effectiveness. Therefore, it is recommended that a transition strategy and plan are linked to management strategy and business plan, including medium-term management plans.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ Interviews with stakeholders	MHI has set forth transition initiatives as a roadmap for becoming carbon neutral in its "MISSION NET ZERO" carbon neutrality declaration for 2040, and in its mediumterm business plan "2021 Business Plan," MHI has set "Realization of a Green Society" as one of its goals for 2030. MHI has set this as a priority theme and is working on it. In other words, MHI's transition strategy and plan are closely related to its management plan, and are judged to be highly effective and credible initiatives.
Δ	1-f)	However, because such strategies and plans run for a long period of time, it is possible that the content may be modified or adjusted in the event of a major change in the assumed external environment and so on.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ /07/ Interviews with stakeholders	MHI is including various technology options to realize the transition strategy. Through the assessment, DNV also confirmed that MHI plans to flexibly implement changes and revisions to the transition strategy and plan in response to the revision of national guidelines.



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
	1-g)	In the initial phase of developing a transition strategy by the fundraiser, it is considered as an option for the fundraiser to indicate a plan for future implementation of items described with the words "recommended" and "be considered/ possible" in these Guidelines.	Yes No Not Applicable	Confirmed documents: /01/ *Confirmation through this assessment	DNV confirmed that MHI's transition strategy has been generally implemented for the " recommend " and " be considered/possible " items in the Guidelines.
0	1-h)	In order to secure the effectiveness of the transition strategy, the fundraiser should establish an organizational structure ¹² for the board of directors and/or other such committee to oversee the activities addressing climate change and for management to play a role in assessing and managing such climate-related activities.	Yes No Not Applicable	Confirmed documents: /01//02/ Interviews with stakeholders	 MHI has established and is implementing the following organizational structure. Established a sustainability promotion system from the Board of Directors to promote sustainability throughout the Group, including subsidiaries. Establish an organizational structure to address environmental and social issues associated with the implementation of transition strategies, and to monitor, evaluate, and manage transition efforts. Established the Materiality Promotion Council, chaired by the president, as a meeting body for sustainability promotion, to promote efforts to address materiality, including climate change. MHI Sustainability Promotion System Chart



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					Board of Directors Meetings Executive Committee Materiality Council Promoting or business activities to Chairman President and CED Chairman Central Vision Centra
	1-i)	While a transition strategy shall be basically developed by a company in need of finance, it is possible for entities to utilize the strategy of companies that are wholly or partially responsible for the initiatives to establish or explain their own strategy, given that the finance supports GHG emissions reduction initiatives of not just a single company but its supply chain.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//12/ /13//14//15//16//17/ Interviews with stakeholders	MHI is building a transition strategy as the MHI Group, with MHI at its core. The transition strategy includes activities to contribute to the reduction of CO ₂ in Japan and abroad, as well as in society as a whole, by providing technologies, systems, facilities, and equipment that contribute to low-carbon and decarbonization on both the supply and demand sides of energy, in accordance with policies set by the government and other organizations.
©	1-j)	Transition strategies should be disclosed in advance in a company's integrated report, sustainability report, statutory documents and other materials for investors (including such disclosures on the website). This also applies to the other three elements.	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ Interviews with stakeholders	MHI's transition strategy (including overall environmental initiatives) is based on the vision for 2030 in the MHI Group's Medium-Term Management Plan "2021 Business Plan" and is presented in the "MISSION NET ZERO" carbon neutrality declaration for 2040 and in the Integrated Report, etc., in advance to stakeholders.



Ref.	No.	Disclosure elements	Requirement	Work Undertaken	DNV Findings
Δ	1-k)	It is possible to disclose transition strategies and elements concerning the governance guaranteeing that the execution of transition strategies is in alignment with the reporting frameworks such as the Recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD; Final Report) ¹³ .	check Yes No Not Applicable	Confirmed documents: /01//02//03//04/ Interviews with stakeholders	MHI's transition strategy takes into account the TCFD recommendations, and the transition strategy and the governance of TCFD recommendations are consistent. MHI discloses governance items in its Integrated Report and Framework. Relevant information is provided in 1-d), 1-h), and 1-j).
0	1-l)	If the implementation of a transition strategy assumes impacts on society and environment other than climate change, it is recommended that the fundraiser explain the view underlying its approach ¹⁴ , etc. to address such impacts and disclose how the strategy on the whole contributes to achieving the Sustainable Development Goals (SDGs) so that the effects can be appropriately evaluated by the financier.	Yes No Not Applicable	Confirmed documents: /01//05//06//09/ Interviews with stakeholders	DNV confirmed that at this time there are no additional significant social or environmental impacts associated with the implementation of MHI's Transition Strategy. We have also confirmed that procedures are in place to ensure that the project evaluation and selection process does not conflict with any exclusion criteria (e.g., human rights, environmental or other social issues). However, in the implementation of the project, consideration and measures for social and environmental impacts based on laws, regulations, ordinances, and MHI's own standards are implemented as part of MHI's standard business and operational management processes. In addition, the contribution to the achievement of the SDGs in the implementation of the Transition Strategy is incorporated in "providing energy solutions to enable a carbon neutral world" as the relationship between MHI's materiality and the SDGs. Reference (listed in Table-1 in the main text): Providing energy solutions to enable a carbon neutral world



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					Goal 7: Affordable and Clean Energy Goal 12: Responsible Consumption and Production Goal 13: Climate Action
0	1-m)	Considering the length of application and other factors, there may be instances when a transition strategy and plan will need to be modified due to major changes in the external environment and relevant conditions that were assumed at a planning phase. In this case, the contents of the modification should be disclosed together with the underlying reason in a timely manner.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ /07/ Interviews with stakeholders	MHI is including various technology options to realize the transition strategy. DNV also confirmed through the assessment that MHI plans to flexibly implement changes and modifications to the transition strategy and plan in response to revisions of national guidelines. MHI plans to disclose any material changes to its transition strategy and plan in a timely manner, along with the reasons for such changes.
O	1-n)	In terms of governance, it is recommended that disclosures include an organizational structure for overseeing the implementation of a transition strategy and for assessing and managing related initiatives. It is also recommended that disclosures include the specific roles of the constituent organizations and the management and the process by which	Yes No Not Applicable	Confirmed documents: /01//02/ Interviews with stakeholders	 MHI has established the following organizational structure. Established a sustainability promotion system from the Board of Directors to promote sustainability throughout the Group, including subsidiaries. Establish an organizational structure to address environmental and social issues associated with the implementation of transition strategies, and to monitor, evaluate, and manage transition efforts. Established the Materiality Promotion Council, chaired by the president, as a meeting body for sustainability promotion, to promote efforts to address materiality, including climate change.



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		the content of deliberations is reflected in management.			MHI links the governance of the Transition Strategy to the governance of the TCFD recommendations as a sustainability promotion structure, and discloses the process as follows (MHI website). "To enhance corporate value and grow in the medium to long term through solutions to social issues, in fiscal 2020, MHI Group has identified materiality it should be addressing. (Snip) Activities that engage in materiality embody sustainability management in terms of business. In order to make materiality activities effective, we will establish subcommittees with managers and departments in each materiality to examine specific measures and roadmaps. In October 2021, we established the Materiality Council, chaired by the President, to follow up on business activities aimed at realizing materiality goals and to instruct business divisions to take necessary measures. These activities are important themes in sustainability management and are regularly reported to the Board of Directors."
0	1-0)	In cases where the fundraiser determines the need for an objective assessment regarding the transition strategy, it is recommended that a review, assurance and verification by an external organization for its transition strategy.	Yes No Not Applicable	Confirmed documents: /01/~/11/ Interviews with stakeholders *Confirmation through this assessment	MHI utilizes an external DNV review for an objective assessment of green/transition financing eligibility, including transition strategies.



Ref.	No.	Disclosure elements	Requirement	Work Undertaken	DNV Findings
			check		
	1-p)	It is recognized useful to obtain a review particularly concerning the following in connection with the transition strategy: - Alignment of short-term, mid-term and long-term targets (for targets, refer to Element 3) with the overall scenario - Credibility of the fundraiser's strategy to reach the targets - Appropriateness of the management process and governance for the transition strategy	Yes No Not Applicable	Confirmed documents: /01/~/11/ Interviews with stakeholders *Confirmation through this assessment	DNV confirmed the following regarding its review of MHI's transition strategy - MHI's transition strategy is consistent with the scenarios (specific action plans) and the targets shown in the table below. - It is judged that MHI's transition strategy is positioned as one of the core components of its management plan and vision, and that its credibility is supported by specific plans and goals. - The Transition Strategy is a plan where the management process and governance of the Transition Strategy will be properly implemented under the Sustainability Promotion Structure. Target



- 9 Transition finance is available for not only entities with strategies and plans for reducing emissions associated with their corporate economic activities, but also entities that plan to take initiatives that enable others to implement transition strategies through their own products and services. In such cases of financial institutions, a financier should articulate how the underlying projects or activities themselves fit into the fundraiser's strategy while, similarly, a subsidiary or an SPC to make use of its group's or its sponsors' strategy. However, doing so they should explain how their strategy will contribute to the strategy as a whole. In addition, it can be considered that parent company or the group who established the strategy would explain the transition elements as the main fundraiser.
- 10 The Paris Agreement sets out a goal to Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.
- 11 Climate-related scenarios are listed in the "Task Force on Climate-related Financial Disclosures (TCFD) Technical Supplement" and the document issued by the Ministry of the Environment: "Practical Guide for Scenario Analysis in line with TCFD Recommendations". In addition, Principles for Responsible Investment (PRI) disclose a set of climate scenario tools.
- 12 Assumes matters provided for under "governance" in the TCFD Recommendations.
- 13 As for the approach to disclosure aligned with TCFD Recommendations, refer to "Guidance on Climate-related Financial Disclosures (TCFD Guidance) 2.0", "Guidance for Utilizing Climate-related Information to Promote Green Investment (Green Investment Guidance)" (both published by the TCFD Consortium), and the document published by the Ministry of the Environment: "Practical Guide for Scenario Analysis in line with TCFD Recommendations".
- 14 An example of the approach may be to identify, eliminate, reduce, and manage potential negative effects.



CTF-2 Business Model Environmental Materiality

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Finding	gs
©	2-a)	Initiatives for achieving the transition strategy should be such that contribute to transforming core business activities that are environmentally material parts today and in the future. 15	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06//07 / Interviews with stakeholders	to achieve sicontribute to supply and doore Energy and Logistics Specific initiately.	tion Strategy includes initiatives designed gnificant CO ₂ reductions that will transformational change on both the lemand sides of energy, including MHI's Domain, Plant & Infrastructure Domain, G., Chiller & Drive System Domain. Stives include the following (see table seen/Transition Finance Eligible Project green project Eligibility Criteria
					Businesses and/or Projects	Eligibility Criteria
					Renewable	· Wind power (wind power plants)
					energy	· Geothermal power (geothermal power plants)
					Clean energy	Hydrogen gas turbine (hydrogen power generation businesses and/or projects for100% hydrogen firing)
						Ammonia gas turbine (ammonia power generation businesses and/or the projects 100% ammonia firing)
						· Hydrogen/ammonia production (green)



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings	•
					Steam power (conversion to 100% ammonia firing) Gas engines for power generation (100% hydrogen firing) Transition Project	1%
					Eligible Eligibility Criteria Businesses and/or Projects	
					Decarbonize existing infrastructur e LNG-fired high-efficiency gas turbine Steam power (conversion to 100% ammonia firing) Gas engine for power generation (hydrogen co-firing) Material handing (high efficiency and fue cell powered)	uel
					Build a hydrogen solutions ecosystem - Hydrogen production (blue or turquoise, etc.) - Ammonia production (blue or turquoise, etc.) - Hydrogen compressors (for hydrogen production, transport, storage, etc.) - Metals machinery (hydrogen-reduced ironmaking, etc.)	
					Build a CO ₂ solutions ecosystem • CO ₂ Capture and Storage • CO ₂ transport (liquefied CO ₂ carries, etc	c.)



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
0	2-b)	When identifying business activities that are environmentally material parts, it is recommended that the fundraiser consider multiple climate change-related scenarios that may possibly impact its judgment on the identification ¹⁶ .	Yes No Not Applicable	Confirmed documents: /01//02/ Interviews with stakeholders	MHI discloses climate change-related information in line with TCFD recommendations. Specifically, it discloses governance, strategy (transitions), risk management (1.5 °C below, risks and opportunities for the 4°C scenario, efforts toward 2030, and financial impacts), and indicators and targets. MHI's transition strategy is associated with this TCFD effort.
	2-c)	In terms of considering materiality, it is possible to apply existing guidance provided by an organization that creates standard criteria concerning sustainability reporting ¹⁷ .	Yes No Not Applicable	Confirmed documents: /01//02/ Interviews with stakeholders	In identifying materiality, MHI utilizes analysis and evaluation methods that take into account both positive and negative aspects of its operations, utilizing GRI standards, ISO 26000, SASB, TCFD, etc. In addition, efforts to address environmental materiality include not only emission reductions from the company's own business activities, but also activities that contribute to Scope 3 and reductions at other companies. In addition, contribution to the SDGs, which will be discussed later, is also taken into consideration. These are disclosed in the Framework and other documents. *1: An international standard established by the Global Reporting Initiative to provide ESG-related reporting, management, and analysis methods.
©	2-d)	The fundraiser should indicate that climate change is an environmentally material part of business activities ¹⁸ .	Yes No Not Applicable	Confirmed documents: /01//02//04/ Interviews with stakeholders	MHI's environmental materiality is "climate change" under the theme of "providing energy solutions to enable a carbon neutral world". These are disclosed in the Integrated Report, on the website, and through the Framework.



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
0	2-e)	It is recommended that disclosures include the contents of climate change-related scenarios used in identifying business activities that are environmentally material parts along with the underlying reasons (e.g., regional and industrial characteristics) for selecting such scenarios.	Yes No Not Applicable	Confirmed documents: /01//02//03//12//13/ /14//15//16//17/ Interviews with stakeholders	Through its TCFD efforts, MHI explains the importance of transitions using multiple forecast scenarios from the International Energy Agency. In this context, efforts to contribute to transitions by utilizing core business are explained.

- 15 They include activities that are environmentally material parts are considered to be business activities of the fundraiser that identifies climate change as part of its materiality.
- 16 Scenario analysis using multiple climate-related scenarios is similar to that required by the TCFD Recommendations, and it is considered useful to refer to relevant guidelines and such like for implementation methods. An example is the document issued by the Ministry of the Environment: "Practical Guide for Scenario Analysis in line with TCFD Recommendations".
- 17 "The SASB Materiality Map" issued by the Sustainability Accounting Standards Board serves as a guidance concerning materiality.
- 18 As for the approach to identifying environmentally material business activities, it is possible to use the materiality map and such like and outline the level of materiality of climate change for one's entity.



CTF-3 Climate Transition Strategy to be Science-based Including Targets and Pathways

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings	
0	3-a)	The fundraiser should reference science-based targets in developing its transition strategies.	Yes No Not Applicable	Confirmed documents: /01//02//03//12//13/ /14//15//16//17/ Interviews with stakeholders	MHI's transition strategy and targets are consistent with the sector-specific roadmaps of the International Energy Agency and the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, which are intended to align with the Paris Agreement targets. Since these roadmaps are based on the scientific evidence necessary to achieve the goals of the Paris Agreement, MHI's transition strategy is considered to be a scientifically based goal.	
•	3-b)	This should include mid-term targets (short-to mid-term targets) in addition to long-term targets for 2050 and be quantitatively measurable based on a measurement methodology which is consistent over a long period of time.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//05/ Interviews with stakeholders	MHI has developed a transition strategy as a transition roadmap, which incorporates short-term targets, medium-term targets, and a strategic plan for decarbonization (i.e., a plan to introduce technologies that will contribute to the transition). Each goal under MHI's Transition Strategy is disclosed as follows. Target Reduce CO₂ Reduce CO₂ emissions across MHI's value chain MHI Group Scope Scope 3*² + reductions from CCUS 2030 ▲50% (compared to 2019) 2014) 2040 Net Zero Net Zero *1: The calculation standard is based on the GHG Protocol. *2: The calculation standard is based on the GHG Protocol. However, we also account for reductions achieved by CCUS as an MHI original index.	



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					Reference: The short-term target is set in the MHI Group's Fifth Environmental Target (FY2021-FY2023) as "a 9% improvement in CO2 emissions per unit of production from offices and plants in FY2023 compared to FY2014".
	3-c)	In addition, it is recommended that GHG reduction targets, which could be formulated either in intensity and absolute terms, should consider environmental materiality and cover Scopes 1 through 3 of GHG Protocol, the international standard on supply-chain emissions. It is recommended that targets covering Scope 3 be set using a practical calculation method when it could be subject to significant reduction in the fundraiser's business model ¹⁹ . It is also possible to disclose the avoided emissions as necessary.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//05/ Interviews with stakeholders	MHI's emissions are evaluated in absolute and specific emissions. It covers Scope 1, Scope 2, and Scope 3 (major items), and also considers emission reductions from society as a whole. Scope 3 is an important reduction target in MHI's supply chain and business model, and targets are set to the extent practicable. See 3-b) for details.
(△)	3-d)	Science-based targets are GHG reduction targets required for achieving the goals of the Paris Agreement and should be set while taking into account differences in regional characteristics and industries. In so doing, it is possible to refer to the following trajectories. - Scenarios widely recognized in the international community (Examples	Yes No Not Applicable	Confirmed documents: /01//02//03//04//12/ /13//14//15//16//17/ Interviews with stakeholders	 MHI's Transition Strategic Target refer to the following Internationally widely recognized scenario ⇒Refer to IEA's analysis of multiple scenarios to the TCFD MHI's transition roadmap and goals were validated through an assessment of its plans.



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		include the Sustainable Development Scenario (SDS) outlined by the International Energy Agency (IEA) ²⁰) - Objectives verified under the Science Based Targets Initiative (SBTi) and such like - Nationally Determined Contributions (NDC) of countries aligned with the goals of the Paris Agreement, roadmaps by industry sector ²¹ , industries set out plans that are science-based achieving the Paris Agreement ²² and so on.			- Targets consistent with the goals of the Paris Agreement (NDCs, industry-specific roadmaps, scientific basis defined by industry, etc.) ⇒Refer to the Ministry of Economy, Trade and Industry's roadmap for the electric power, gas, iron and steel, and chemical industries and the Ministry of Land, Infrastructure, Transport and Tourism's roadmap for international marine transportation.
0	3-e)	Short- to mid-term targets (with a term of three to fifteen years) should be set by referencing the aforesaid trajectories or on the pathway toward the long-term targets planned as benchmarks ²³ .	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ Interviews with stakeholders	MHI's goals for the Transition Strategy (2030/2040) are based on the asset deployment and technology development plans outlined in the Pathway to Carbon Neutrality for Society as a Whole in 2050 (Transition Roadmap). *For details, see 3-b)
	3-f)	In doing so, since short- to mid-term targets will likely be set in consideration of various factors (including the starting point and track records of the issuer, timing of capital investments, economic rationality, costbenefit analysis, and availability of technology necessary to achieve the targets), it is possible that the pathway may not necessarily be linear with the same slope at all times but may be nonlinear.	Yes No Not Applicable	Confirmed documents: /01//02//03//04/ Interviews with stakeholders	MHI plans to achieve its goals through multiple technology options, taking into account a variety of factors (short-term initiatives, medium- to long-term technology development and implementation) when developing the transition roadmap presented in Mission Net Zero. A non-linear path toward carbon neutrality in 2040 is planned through energy conservation and in-house technologies in Scope 1 and 2, and fuel conversion, energy conservation/electrification, and CCUS business expansion in Scope 3.



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
©	3-g)	The fundraiser should disclose the short- to mid-term and long-term targets they have set, including the base years etc.	Yes No Not Applicable	Confirmed documents: /01//02//03/ Interviews with stakeholders	MHI's transition strategy sets 2014 as the base year for Scope 1 and 2, and 2019 as the base year for Scope 3, with 2021-2023 as the short-term target, 2030 as the medium-term target, and 2040 as the long-term target. These are disclosed through Mission Net Zero and the Framework. *For details, see 3-b).
©	3-h)	In order to show that long-term targets are science-based, disclosures should explain the methodology or trajectory used to define target, including the underlying reasons (e.g., characteristics specific to a region or industry). In particular, when reference is made to plans and industry roadmaps established by an industry, etc., the explanation should include that they are grounded in scientific basis.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//12/ /13//14//15//16//17/ Interviews with stakeholders	The long-term goals in MHI's Transition Strategy are consistent with those of the International Energy Agency and the Ministry of Economy, Trade and Industry. The Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism' targets (sectoral roadmaps for Power, gas, iron and steel, chemicals, and international shipping) refer to Japan's various policies and international scenarios aimed at achieving carbon neutrality in 2050, and are clearly stated to be consistent with the Paris Agreement.
	3-i)	It is possible that disclosures explain the pathway toward a long-term target and the alignment between the short- to mid-term targets on the pathway and the transition strategy, based on the investment plan (refer to Element 4) and other plans.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ /07/ Interviews with stakeholders	MHI has identified the following (see table below) as specific initiatives that are examples of representative projects (eligible project categories) that may be eligible for investment in its efforts to achieve its long-term goals. Table MHI Green/Transition Finance Eligible Project Category green project Eligible Eligiblity Criteria business



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Finding	gs
					and/or projects	
					Renewable	· Wind power (wind power plants)
					energy	· Geothermal power (geothermal power plants)
					Clean Energy	 Hydrogen gas turbine (hydrogen power generation businesses and/or projects for100% hydrogen firing)
						 Ammonia gas turbine (ammonia power generation businesses and/or the projects 100% ammonia firing)
						· Hydrogen/ammonia production (green)
						· Steam power (conversion to 100% ammonia firing)
						Gas engines for power generation (100% hydrogen firing)
						Transition Project
					Eligible business/pr oject	Eligibility Criteria
					Decarbonize existing infrastructur e	 Hydrogen-fired (co-firing) gas turbine Ammonia-fired (co-firing) gas turbine LNG-fired high-efficiency gas turbine Steam power (conversion to 100% ammonia firing) Gas engine for power generation
						(hydrogen co-firing)



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					Material handing (high efficiency and fuel cell powered)
					Build a hydrogen solutions ecosystem Hydrogen production (blue or turquoise, etc.) Hydrogen compressors (for hydrogen production, transport, storage, etc.) Metals machinery (hydrogen-reduced ironmaking, etc.) Build a CO ₂ CO ₂ Capture and Storage
					solutions • CO ₂ transport (liquefied CO ₂ carries, etc.) ecosystem
					DNV confirmed that MHI has an overall investment plan (investment amount) of 180 billion yen in growth areas, including decarbonization, by 2023, in line with the timeline.
	3-j)	Concerning targets and trajectories, obtaining expert reviews on the following is considered to be particularly useful: - Whether the long-term target is aligned with science-based targets	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ /07//12//13//14//15/ /16//17/ Interviews with stakeholders	Based on the materials and information provided by MHI, DNV reviewed the following and confirmed that the targets and trajectories are based on scientific evidence. - Are the long-term goals scientifically based goals?



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		 →Whether the disclosed information explains the alignment with the Paris Agreement - Whether the short- to mid-term targets are determined using a GHG emissions forecast calculated based on a climate change scenario analysis →Whether scenarios, etc. widely recognized in the international community are used or referenced - Whether the actual values of the indicators used for the targets are quantitatively measured using consistent measurement methods →Whether a specific GHG emissions reduction measure has been developed to achieve short- to mid-term targets aligned with long-term goals 			 ➤ The targets and trajectory based on MHI's Transition Strategy are incorporated in the International Energy Agency's World Energy Outlook and the targets of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism (roadmaps by sector for Power, gas, Iron and steel and chemicals) to achieve carbon neutrality in 2050. It refers to each of Japan's policies and international scenarios, etc., and specifies that those goals are consistent with the Paris Agreement. In setting short- and medium-term targets, are GHG accounting projections based on climate change scenario analysis? ➤ IEA's analysis by TCFD based on the below 1.5°C and 4°C scenarios. Are performance values related to the indicators utilized in the objectives quantitatively measured by consistent measurement methods? ➤ The indicator used for the target is CO₂ emissions (absolute value), and MHI has established a method for calculating the reduction effect based on the number of facilities installed, the number of facilities sold, or the basic unit (g- CO₂ /kWh). Through the review, DNV confirmed that the CO₂ reduction effect is estimated based on the actual number of equipment installed and equipment sold or the basic unit (g- CO₂ /kWh). Some projects are



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
					difficult to calculate direct CO ₂ reductions, so the progress of the project and other information shall be disclosed.

- 19 Since an appropriate method for calculating Scope 3 emissions for specific industrial sectors is under development, it is possible to estimate Scope 3 emissions on a provisional "best effort" basis. When disclosing, it is recommended that boundaries, calculation methods and other relevant factors be also reported. "Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain" (METI, MoE; 2017 Japanese only. Related information in English) can be used for calculation references.
- 20 In addition to benchmarks indicated by the IEA, there are those referenced by the IPCC, such as RCP 2.6 (keep global warming to below 2°C), RCP 1.9 (keep global warming to below 1.5°C) and other related Transition Pathway Initiative (TPI) benchmarks. Meanwhile, scenario listings are available in the TCFD Technical Supplement and in the document published by the Ministry of the Environment: "Practical Guide for Scenario Analysis in line with TCFD Recommendations".
- 21 An example of a sector-specific roadmap formulated by a public organization is the "Roadmap to Zero Emission from International Shipping" (Ministry of Land, Infrastructure, Transport and Tourism; 2020). The Ministry of International Trade and Industry also plans to formulate a roadmap for high emission industries.
- 22 In utilizing a plan formulated at a sector level, it is necessary to have a credible proposition that the alignment with the Paris Agreement can be explained with scientific grounds.
- 23 While it is possible to set short- to mid-term targets by determining the standard based on an assumed use of best available technologies (BAT), consideration should be made as to whether the use of such technologies might make it difficult to achieve long-term targets.



CTF-4 Implementation Transparency

Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings		
0	4-a)	In implementing transition strategies, the fundraiser should provide transparency of the basic investment plan to the extent practicable.	Yes No Not Applicable	Confirmed documents: /01//04//06/ Interviews with stakeholders	DNV confirmed that MHI has an overall investment plan (investment amount) of 180 billion yen in growth areas, including decarbonization, by 2023, in line with the timeline.		
	4-b)	The investment plan includes not only capital expenditure (Capex) but also capital and operational expenditure (Opex). Therefore, costs related to research and development, M&A, and dismantling and removal of facilities are also subject to the investment plan. In other words, it is recommended that the investment plan incorporate, to the extent possible, expenditure and investment necessary for implementing the transition strategy.	Yes No Not Applicable	Confirmed documents: /01//04//06/ Interviews with stakeholders	The investment plan is a plan that includes any or more of the following strategies that contribute to the efforts necessary to implement the transition strategy: research and development, business development, business operations, operations, and other related expenditures. Specific initiatives include the following (see table below). Table MHI Green/Transition Finance Eligible Project Category Green project		
					Eligible business and/or projects Eligibility Criteria		
					Clean energy · Hydrogen gas turbine (hydrogen power generation businesses and/or projects for100% hydrogen firing)		



D. 6		Bi-day and describe	B			n Finance Framework Second Party Opinioi
Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings	
					- 1	Ammonia gas turbine (ammonia power generation businesses and/or the projects 100% ammonia firing) Hydrogen/ammonia production (green) Steam power (conversion to 100% ammonia firing) Gas engines for power generation (100% hydrogen firing) ansition Project Eligibility Criteria Hydrogen gas turbine (co-firing) Ammonia gas turbine (co-firing) LNG-fueled high-efficiency gas turbine Steam power (conversion to 100% ammonia firing) Gas engine for power generation (hydrogen co-firing) Hydrogen production (blue or turquoise, etc.) Hydrogen compressors (for hydrogen production, transport,
						storage, etc.)



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings	
					Metals machinery (hydrogen-reduced ironmaking, etc.) Build a CO ₂ solutions ecosystem CO ₂ Capture and Storage CO ₂ transport (liquefied CO ₂ carries, etc.)	
Δ	4-c)	It is recommended that the investment plan outline the assumed climate-related outcomes and impacts ²⁴ in a quantitative fashion where possible, along with the calculation methods and prerequisites ²⁵ . If quantification is difficult, the use of external certification systems can be considered as a substitute for qualitative assessment.	Yes No Not Applicable	Confirmed documents: /01//02//03//04// 06//07/ Interviews with stakeholders	The climate-related outcomes and impacts envisioned by the investment plan are reductions in society as a whole (including both domestic and international) through "reductions in own CO ₂ emissions" and "contributions to society through the entire value chain" (including reduction contributions at suppliers). Both of these are based on the CO ₂ reduction amount as an indicator, and are set to be reduced by 50% each by 2030 (compared to 2014 for the company itself, and compared to 2019 for the entire value chain). Through the assessment, DNV confirmed that MHI has established calculation methods and assumptions for each appropriate project category. However, because the calculation methods and assumptions include business strategies, it is MHI's policy not to provide general disclosure, including the appropriateness of such disclosure.	
0	4-d)	In particular, when outlining the assumed climate-related outcomes and impacts, it is recommended that the disclosure include not only GHG emission reduction and other	Yes No Not Applicable	Confirmed documents: /01//02//03//04// 06//07/	No critical factors are identified that would hinder a "fair transition" through the implementation of MHI's transition strategy. The project is capable of utilizing existing assets and is considered to be able to transition	



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		initiatives to ease climate change but also report how consideration of a "just transition" ²⁶ is incorporated into the transition strategy.		Interviews with stakeholders	with limited impact on employment in the existing value chain and increased social costs. If, through the assessment, DNV confirmed that MHI believes that any future projects it implements may have a negative impact on the "fair transition" or the SDGs, it confirmed that it will take appropriate actions and disclose such information when necessary.
0	4-e)	If implementing the transition strategy has the potential of having a negative impact on employment or the environment and communities other than climate change, it is recommended that any expenditures to mitigate such negative impacts be added to the plan.	Yes No Not Applicable	Confirmed documents: /01//02//03//04// 05//06//07/ Interviews with stakeholders	At this time, we have confirmed that there are no additional significant social or environmental impacts related to the implementation of MHI's transition strategy. However, in the implementation of the project, consideration of and measures to address social and environmental impacts in accordance with laws, regulations, ordinances, and in-house standards will be implemented as part of MHI's standard business and operational management processes.
©	4-f)	Moreover, the outcomes arising from investments included in the investment plan should align with the targets.	Yes No Not Applicable	Confirmed documents: /01//02//03//04// 06//07/ Interviews with stakeholders	MHI is quantitatively evaluating that the results (CO ₂ reductions) from each of the qualified project candidates (see (3-b)) included in the investment plan are consistent with the target (see (3-c)).
O (△)	4-g)	Transition finance is a means to financially support the implementation of a transition strategy, and it is recommended that financing be provided for new initiatives. However, in the case of transition finance in the format of Use of Proceeds instruments,	Yes No Not Applicable	Confirmed documents: /01//02//03//04// 05//06//07/ Interviews with stakeholders	MHI Green/Transition Financing is planned to be used to fund both new initiatives and refinancing of existing expenditures (amounts and percentages are expected to vary by project and bond). When refinancing is targeted, we confirmed that a reasonable look-back period (e.g., the subject asset's



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		refinancing for a reasonably set lookback period (the period during which refinancing is to be applied for projects that have already started) is considered to be eligible.			transitional nature is maintained at the time of refinancing and that environmental improvement effects are realized during the redemption or repayment period) is established.
0	4-h)	It is recommended that investment plans be disclosed by linking the outcomes and impacts with the expenditures to the extent practicable ²⁷ .	Yes No Not Applicable	Confirmed documents: /01//02//03//04// 05//06//07/ Interviews with stakeholders	DNV confirmed that MHI plans to invest 180 billion yen in growth areas, including decarbonization, by 2023, with investment plans in line with the timeline. For each type of financing, the amount of the project to be invested, the amount to be allocated (whether new allocation or refinancing), and the environmental benefits (calculation method or results) will be disclosed to the extent practicable in the evaluation of the specific use of the funds.
0	4-i)	It is recommended that the fundraiser, after securing financing, reports any deviations between the initial plan and the actual expenditure, outcomes and impacts. For any deviations, it is recommended that the underlying reasons be explained.	Yes No Not Applicable	Confirmed documents: /01//02//03//04// 05//06//07/ Interviews with stakeholders	MHI will report any significant deviations in expenditures, outcomes, or impact from the original plan, and will include the reasons for such deviations in the post-funding reporting.
0	4-j)	In cases where the Use of Proceeds bonds include refinancing, the fundraiser should provide an explanation on the lookback period set under the framework or other	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	MHI has established a look-back period of approximately three years. This is a standardized period of time that MHI's environmental business would not lose its transitional nature in a short period of time. MHI has confirmed that if a look-back period longer than approximately three years arises in the future, the



Ref.	No.	Disclosure elements	Requirement check	Work Undertaken	DNV Findings
		relevant methods along with the underlying reasons and factors.			period and the reason will be explained at an appropriate time (e.g., in statutory documents or reporting prior to the issuance of bonds).
(△)	4-k)	While there are differences in business practices, such as the fact that loans are traditionally made based on the bilateral relationship between a borrower and a lender, it is recommended that disclosure on the above be made to the extent possible in order to ensure transparency and credibility of transition finance. However, if it is difficult to disclose such information to the public from the standpoint of confidentiality and competition, it is possible to report such information only to lenders or external evaluation organizations without disclosing it to the public.	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders * This report	When MHI executes green/transition financing that utilizes loans, it will explain that the loan is based on the Framework and the results of this external evaluation, and will disclose, to the extent practicable, the requirements set forth in the Green Loan-related Standards.
Δ	4-1)	Similarly, in cases where the fundraiser is a small-to-medium-sized enterprise and it is difficult to disclose to the public the same content as that reported to the financier or an external evaluation institution, it is possible for the fundraiser to simplify the content of disclosure, for example, by limiting disclosure to a summary of h) to j) of this section.	Yes No Not Applicable	Interviews with stakeholders	MHI is not a small business.



- 24 The Ministry of the Environment, in its "Concept Paper on Impact Finance", refers to impact as "a positive or negative change to the environment, society or economy caused by an organization and is not a direct deliverable or output but an outcome as a change brought about in terms of the environment, society or economy."
- 25 In disclosing impacts, outlining the amount of contribution to reducing CO₂ emissions in the global value chain on the whole and the entire lifecycle, including the consumption phase, can be considered. For the amount of contribution to the reduction, it is possible to reference the "Guideline for Quantifying GHG Emission Reduction Contribution" (METI, 2018). Furthermore, as for outcomes on research and development, it is possible to reference the IEA Measuring Innovation by Technology Readiness Level (TRL) or Importance for Net-Zero Emission, among others, and outline the progress in the R&D phase or the potential of reducing CO₂ emissions with the relevant technology by highlighting the importance of net-zero emissions.
- 26 A just transition is an attempt to ensure the wide sharing of virtual profits created through a transition to a green economy, as well as to support any party who will experience an adverse economic impact (be it a country, a region, an industry, a community, a worker, or a consumer). The concept of a just transition corresponds to several SDGs.
- 27 In particular, disclosure of investment plans is expected to be required for projects applicable to Use of Proceeds.



Schedule-5 Green Bond Guideline (Green Bonds and Transition Finance with specific use of proceeds) Eligibility Assessment

Following check list (GBGLs-1 ~ GBGLs-4) is prepared based on the Green Bond Guidelines (GBGLs, MOE, 2020).

According to the GBGLs, Requirements/Work Undertaken are divided into following two terms, Should: Recommend: O

The numbers /01/, /02/ ~ /18/ listed in the Work Undertaken column are the confirmed documents, and the details (document name) are shown in Appendix.

In addition to the confirmed documents, the Work Undertaken includes the case where the information obtained through discussions and interviews with the publishers is used as evidence.

This assessment applies as a requirement for Use of Proceeds based on CTFH and CTFBG, so any term "green" and "bond" in Schedule-5 should be read as "transition" or "finance (bond)".

GBGLs-1 Use of Proceeds

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	1-①	Green Bond proceeds should be allocated to Green Projects that state the clear environmental benefits, which should be assessed by the issuer	Yes No Not Applicable	Confirmed documents: /01//02//03//04// 06//07/ Interviews with stakeholders	The proceeds from Green/Transition Finance will be allocated to projects that contribute to the low-carbon and decarbonization of the MHI Group through projects related to climate change in MHI's materiality. Specific environmental benefits have been evaluated by the issuer to lead to CO ₂ reductions.
0	1-①	Environmental benefit of Green Bond proceeds, where feasible, quantification is recommended.	Yes No Not Applicable	Confirmed documents: /01//02//03//04// 06//07/ Interviews with stakeholders	MHI quantifies the environmental benefits of green/transition projects. Specifically, a calculation formula has been established in advance for the CO ₂ reduction effect and quantified. (Some projects include research and development and installation of equipment for future environmental



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings			
					benefits, making actual results.)	benefits, making it difficult to disclose and quantify actual results.)		
0	1-④	In advance, issuers should provide investors with information regarding the use of Green Bond proceeds through legal documentation (such as a prospectus) or other documents.	Yes No Not Applicable	Confirmed documents: /01//06/ Interviews with stakeholders	MHI plans to explain the use of the proceeds to investors in advance through the Framework and the Amended and Restated Shelf Registration Statement.			
0	1-⑤	The provision of the information regarding the use of proceeds should specify the Green Project categories.	Yes No Not Applicable	Confirmed documents: /01//06/ Interviews with stakeholders * This report	The proceeds will be allocated to one or more of the projects listed in the table below and will be explained to investors through the Framework, the Amended Shelf Registration Statement and other documents and the results of the external review. Table MHI Green/Transition Finance Eligible Project Category green project			
					Eligible business and/or projects	Eligibility Criteria		
					Renewable	· Wind power (wind power plants)		
					energy	· Geothermal power (geothermal power plants)		
					Clean energy	Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen firing)		
						Ammonia gas turbine (ammonia power generation businesses and/or the projects 100% ammonia firing)		



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings	nance Framework Second Party Opinion
					. (Hydrogen/ammonia production (green) Steam power (conversion to 100% ammonia firing) Gas engines for power generation (100% hydrogen firing)
					Eligible business and/or projects	ensition Project Eligibility Criteria
					Decarbonize existing infrastructure	 Hydrogen gas turbine (co-firing) Ammonia gas turbine (co-firing) LNG-fueled high-efficiency gas turbine Steam power (conversion to 100% ammonia firing) Gas engine for power generation (hydrogen co-firing) Material handing (high efficiency and fuel cell powered)
					Build a hydrogen solutions ecosystem	 Hydrogen production (blue or turquoise, etc.) Ammonia production (blue or turquoise, etc.) Hydrogen compressors (for hydrogen production, transport, storage, etc.) Metals machinery (hydrogen-reduced ironmaking, etc.)



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings		
					Build a CO ₂ solutions ecosystem • CO ₂ Capture and Storage • CO ₂ transport (liquefied CO ₂ carries, etc.)		
0	1-⑤	In the cases where individual Green Projects have been specified, it is recommended that issuers clearly present the projects to investors.	Yes No Not Applicable	Confirmed documents: /01//06//07/ Interviews with stakeholders * This report	The investor description is clearly stated about the outline of the green/transition project through disclosure of the framework and the results of the external review, taking into account confidentiality and other factors. Details of specific potential eligible projects and projects to which proceeds are to be allocated are provided to the external review organization to confirm eligibility.		
0	1-⑥	In cases where Green Projects have incidental negative environmental impacts along with the alleged environmental benefits, the issuers should include information regarding these negative impacts (e.g., how they are assessed, what the issuers do to curb them) to investors so that the investors and market participants can appropriately evaluate these impacts.	Yes No Not Applicable	Confirmed documents: /01//05//06//09/ Interviews with stakeholders	Negative impacts associated with the implementation of the project are taken into consideration, such as compliance with environmental laws, ordinances, and regulations, and clear environmental benefits such as CO ₂ reductions during the entire life cycle or in each process. In the operation and implementation of the project, each relevant department is working to conserve the surrounding environment.		
0	1-⑦	(In case of where a part of Green Bond proceeds is used to refinance existing Green Projects,) it is recommended that the issuers provide information to the investors regarding (1) the amount (or the share) of the bond proceeds being allocated for refinancing, and (2) which Green Projects (or Green Project	Yes No Not Applicable	Confirmed documents: /01//02//03//04// 05//06//07/ Interviews with stakeholders	DNV confirmed that it is planned to be disclosed the estimated amount (or percentage) of the portion of the proceeds used for refinancing on an annual basis on the website. If the inclusion of refinancing and its details are confirmed prior to the issuance of the bonds, the plan is to disclose the necessary		



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
		categories) may be refinanced.			information in legal documents, etc., in accordance with CTF 4-g).
O	1-⑦	When Green Bonds are issued multiple times to refinance an asset that requires long-term maintenance, the issuer should clearly disclose the asset's age and remaining useful life and the amount to be refinanced as at the time of the bond issuance, evaluate the long-term sustainability of environmental benefits and obtain an assessment from external reviewers for verification.	Yes No Not Applicable	Confirmed documents: /01//02//03//04// 05//06//07/ Interviews with stakeholders	There are no plans at this time to use refinancing for projects that have been in place for a long period of time.



GBGLs-2 Process for Project Evaluation and Selection

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Fin	dings	
©	2-①	In advance, issuers should provide investors with information regarding the following: The environmental sustainability objectives that the issuers intend to achieve through Green Bonds.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//12/ /13//14//15//16/ Interviews with stakeholders	green/tr strategy Internati roadman and the Tourism Paris Agi the Tran MHI has roadman term tar a plan to transition disclosed These an through	The financing to be provided by MHI through green/transition finance is consistent with the low-carbon strategy set forth in the World Energy Outlook of the International Energy Agency and the sector-specific roadmaps of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, which are intended to align with the goals of the Paris Agreement. The purpose of this project is to achieve the Transition Strategy. MHI has developed a transition strategy as a transition roadmap, which incorporates short-term targets, medium-term targets, and a strategic plan for decarbonization (i.e., a plan to introduce technologies that will contribute to the transition). Each goal under MHI's Transition Strategy is disclosed as follows. These are planned to be explained to investors in advance through the Framework, the results of the external review and the Amended and Restated Shelf Registration	
					Target year Reduce CO₂ Reduce CO₂ emissions across MHI's value chain Scope 3*² + reductions from CCUS 2030 ▲50% (compared to 2014) 2040 Net Zero Net Zero		across MHI's value chain Scope 3*2 + reductions
					*1: The c	alculation standard is ba	ased on the GHG Protocol.



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
					*2: The calculation standard is based on the GHG Protocol. However, we also account for reductions achieved by CCUS as an MHI original index. Reference: The short-term target is set in the MHI Group's Fifth Environmental Target (FY2021-FY2023) as "a 9% improvement in CO ₂ emissions per unit of production from offices and plants in FY2023 compared to FY2014".
•	2-①	In advance, issuers should provide investors with information regarding the following: The criteria for determining the appropriateness of Green Projects based on the environmental sustainability objectives described above	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	It was confirmed through the framework and assessment that the eligibility of MHI's green/transition projects is described in terms of what assessment criteria (standards) are based on. Specifically, the criteria are as follows - Climate Transition Finance Handbook



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
					the Amended and Restated Shelf Registration Statement and other means.
©	2-①	In advance, issuers should provide investors with information regarding the following: The process for determining how Green Projects fit the criteria for the achievement of the environmental sustainability objectives (The process for the determination refers to the reason why issuers determine that Green Projects can provide environmental benefits appropriately in light of the objectives and criteria for the use of Green Bond proceeds, how and by whom are the criteria applied and used to determine whether Green Projects are appropriate in light of the objectives, and the like)	Yes No Not Applicable	Confirmed documents: /01//08//09/ Interviews with stakeholders	DNV confirmed that within the framework there is a description of what process was used to determine the selection of green/transition projects. 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 confirmed that the plan is to be implemented in accordance with the appropriate processes.
0	2-⑥	It is recommended that the issuers explain to investors in advance any environmental standards or certifications that the issuers will refer to in evaluating and selecting a Green Project to be financed.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ /12//13//14//15//16/ /17/ Interviews with stakeholders	The Transition Strategy, which is the basis for evaluation and selection of Green/Transition Finance, is MHI's transition roadmap based on the International Energy Agency Roadmap and the sectoral roadmaps of the Ministry of Economy, Trade and Industry and Ministry of Land, Infrastructure and Transport, with specific goals (short, medium and long-term) and plans. These will be explained to investors through the Framework and Second Party Opinions. There are no environmental standards or certifications for individual projects. Some activities are included through subsidized projects and alliances.



					stries Green/ Transition Finance Framework Second Party Opinion
Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
	2-⑦	If an issuer intends to establish an exclusion standard to identify and control such potentially material environmental and social risks of Green Projects, the issuer should explain it to investors in advance as one of the criteria it applies.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//05/ /06//09/ Interviews with stakeholders	 MHI has eliminated the following transactions as a response to materiality Green/Transition Finance Not specified separately. Transactions that do not meet the policies and standards in the sustainability framework CSR Action Guidelines Policy on Human Rights 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
0	2-9	It is recommended that internal groups who have expertise, such as the environment related group, or external institutions check whether the determination process is suitable from an environmental point of view.	Yes No Not Applicable	Confirmed documents: /01//08//09/ Interviews with stakeholders	DNV confirmed that the selection of transition projects is described within the framework as to what process the decision was based on. 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 confirmed that the plan is to be implemented in accordance with the appropriate processes.
0	2-@	It is recommended that issuers position their environmental objectives, criteria and information on their processes in the context of their comprehensive environmental sustainability objectives, strategy, policies and so on (e.g., medium-term management plan, sustainability strategy, CSR strategy)	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ /12//13//14//15//16// 17/ Interviews with stakeholders	The Transition Strategy, which is the basis for evaluation and selection of Green/Transition Finance, is MHI's transition roadmap based on the International Energy Agency Roadmap and the sectoral roadmaps of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, with specific targets (short, medium and long-term) and plans. These will be



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
		when explaining them to investors.			explained to investors through the Framework and Second Party Opinions.
					MHI's transition strategy is closely related to its Mission Net Zero, 2021 Business Plan (2021-2023), and TCFD-based initiatives.



GBGLs-3 Management of proceeds

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
•	3-①	Issuers should track and manage the net Green Bond proceeds in an appropriate manner. These tracking and managing activities should be controlled by the issuer's internal process.	Yes No Not Applicable	Confirmed documents: /01//08//10//11/ Interviews with stakeholders	DNV confirmed that MHI plans to manage the proceeds so that the total green/transition eligible project amount is not less than the amount of green/transition financing issued, either in the accounting system or in separate internal documents. Through interviews with stakeholders and actual results, DNV confirmed that there is an operation (system) that can be tracked and verified by the above-mentioned fund management.
•	3-②	As long as the Green Bonds are outstanding, issuers manage the amount of the allocation to the Green project is equal to or more than proceed, or issuers should periodically adjust to match the amount of the total Green Bond proceeds to the sum of the amount of the proceeds allocated to Green Projects and the amount of the unallocated proceeds.	Yes No Not Applicable	Confirmed documents: /01//08//10//11/ Interviews with stakeholders	DNV confirmed that MHI plans to monitor the allocation of the proceeds on a regular basis (at least once a year) based on data extracted from its accounting system to confirm that the requirements are satisfied.
0	3-②	If any of the proceeds remains temporarily unallocated, the issuer should explain to investors how it intends to manage the balance of such unallocated funds and endeavour to promptly allocate such funds to Green Projects.	Yes No Not Applicable	Confirmed documents: /01//06//10//11/ Interviews with stakeholders	DNV has explained to investors that MHI will track the balance of unallocated proceeds through its internal control system and how it will manage such funds (i.e., in cash and cash equivalents). In addition, DNV confirmed that MHI plans to allocate the funds to the subject project (including refinancing) in a timely manner. In addition, DNV confirmed that unallocated funds are planned to be allocated within three years, taking into account that the projects include long-term



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
					projects, and that if there is a significant excess, it will be reported in the reporting, etc., along with the reasons for the excess.
0	3-⑤	In advance, issuers should provide investors with information on how Green Bond proceeds will be tracked and managed.	Yes No Not Applicable	Confirmed documents: /01//08//10//11/ Interviews with stakeholders	DNV confirmed that the issuer has internal processes in place to track the proceeds. It confirmed that these are planned to be explained to investors in the framework or otherwise.
0	3-⑥	It is recommended that issuers keep evidenced documents appropriately that demonstrate how they tracked and managed Green Bond proceeds.	Yes No Not Applicable	Confirmed documents: /01//08//10//11/ Interviews with stakeholders	DNV confirmed that there is an internal process in place to ensure that documents related to the management of proceeds are properly retained throughout the outstanding period in accordance with MHI's regulations for document management.
©	3-8	In advance, issuers should provide investors with information on how unallocated Green Bond proceeds will be managed when the Green Projects that will receive the Green Bond proceeds have not been determined, or when such Green Projects have been determined but the proceeds have not been allocated because the allocation timing has not yet arrived.	Yes No Not Applicable	Confirmed documents: /01//10//11/ Interviews with stakeholders	DNV confirmed that the framework describes the method of investment of proceeds equivalent to the amount of funds before allocation (to be managed in cash or cash equivalents).
0	3-9	It is recommended that issuers manage unallocated Green Bond proceeds as an asset with high liquidity and safety such as cash, cash equivalents, or short-term financial assets	Yes No Not Applicable	Confirmed documents: /01//10//11/ Interviews with stakeholders	Cash or cash equivalents as specified in the framework are safe assets and conform to the requirements.



GBGLs-4 Reporting

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	4-①	Issuers should publicly disclose the latest information on the use of Green Bond proceeds after issuance	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	DNV has confirmed that MHI plans to report (annually) on the status of the allocation of proceeds from the Green/Transition financing issue and the environmental benefits of the financing at least until the year following the completion of the allocation, beginning with the year following the issuance of the Green/Transition financing. The annual report will be disclosed on MHI's website.
0	4-②	Issuers should disclose the latest information at least once a year until full allocation of the proceeds and as necessary thereafter in the event of new developments.	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	Same as 4-①. The committee confirmed that even after allocations is completed, any changes in transition strategies or paths, major changes in allocation plans or project implementation status (e.g., suspension of a project that has initiated allocations, significant deferrals on an annual basis, sale or retirement, etc.) will be reported in a timely manner or in the reporting.
©	4-③	Disclosed information should include the following contents: <contents> A list of the Green Projects to which Green Bond proceeds have been allocated</contents>	Yes No Not Applicable	Confirmed documents: /01//06//10//11/ Interviews with stakeholders	The information to be disclosed will include the following for confidentiality reasons The planned timing of the allocation is within 3 years after procurement, and the investment method is expected to be managed with cash or cash equivalents.
		 A brief description of each Green Project (including up-to-date progress) The amount allocated to each Green Project 			Reporting will be published on the website. <allocation status=""> • Status of allocation for eligible projects • Amount or percentage of allocated and</allocation>
					unallocated proceeds, scheduled time of allocation, and method of investment



				The design of th	les Green, transition Finance Framework Second Party Opinion
Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
		 The expected environmental benefits of each Green Project Information regarding unallocated Green Bond proceeds (the amount of the unallocated proceeds or the share of the unallocated proceeds to the total amount of the proceeds, when the unallocated proceeds are expected to be allocates to Green Projects, and how the unallocated proceeds are managed until allocation) 			 Ratio of new financing to refinancing Environmental benefits> The environmental improvement effects should be within the scope of confidentiality obligations, to the extent practicable, and in consideration of the characteristics of the project, including an overview of the project (including the progress of research and development, operation, etc.), the assumed environmental benefits (e.g., tons-CO₂/year, etc. (Reduction effect is calculated based on the number of facilities installed, number of facilities sold, or basic unit (g-CO₂/kWh), etc.)
O	4-④	If Green Bond proceeds have been allocated to the refinancing of existing projects, it is recommended that disclosed information include: 1) the approximate amount (or the share) of the allocated proceeds used for refinancing, and 2) a list of the Green Projects (or the project categories) refinanced.	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	DNV confirmed that MHI plans to disclose the estimated amount (or percentage) of the portion of the procured funds allocated to refinancing in an annual report on its website, if the funds are used for refinancing.
O	4-⑤	While it is recommended to disclose 4-③ and 4-④ on a project-by-project basis, if there are confidentiality agreements, competitive considerations, or a large number of underlying projects that limit the disclosure of details, it is considered that information is presented in generic terms or in an aggregated portfolio.	Yes No Not Applicable	Confirmed documents: /01//06/ Interviews with stakeholders	It was confirmed that information disclosure would be on a per green/transition project basis, but may be in an aggregated format depending on the situation, taking into account confidentiality agreements, etc.
0	4-⑦	When disclosing information regarding the expected environmental benefits of	Yes	Confirmed documents: /01//06//07/	The environmental benefits will be based on the CO ₂ reduction benefits, but will use the appropriate stated



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
		projects, issuers should use appropriate indicators while ensuring consistency with the "environmental sustainability objectives," the "criteria" for Green Projects specified in Section 2, "Process for Project Evaluation and Selection," and the characteristics of Green Projects.	No Not Applicable	Interviews with stakeholders	indicators depending on the nature of the project for which green/transition financing is being allocated.
0	4-8	When disclosing the expected environmental benefits of projects, it is recommended that issuers, where feasible, use quantitative indicators and disclose information on methodologies and/or assumptions as well as these indicators.	Yes No Not Applicable	Confirmed documents: /01//06//07/ Interviews with stakeholders	Environmental improvement benefits will be disclosed using quantitative indicators, but will be conducted on a per-qualified-criteria basis, taking into consideration confidentiality and the rationality of the evaluation process. The calculation method will be disclosed to the extent necessary.



Schedule-6 Green Loan Guidelines (Green Loans and Transition Finance Loan with specific use of proceeds) Eligibility Assessment

The following check list (GLGLs-1 to GLGLs-6) is prepared based on the Green Loan Guidelines (GLGLs, MOE, 2020).

According to the GLGLs, Requirements/Evaluation aspects are divided into following two terms, Should: Recommend:O

The numbers /01/, $/02/ \sim /18/$ listed in the Work Undertaken column are the confirmed documents, and the details (document name) are shown in Reference dcoument-1 (See the Attachment).

In addition to the confirmed documents, the Work Undertaken includes the case where the information obtained through discussions and interviews with the publishers is used as evidence.

This assessment applies as a requirement for Use of Proceeds based on CTFH and CTFBG, so any term "green" and "bond" in Schedule-6 should be read as "transition" or "finance (bond)".

GLGLs-1 Use of Proceeds

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
©	1-①	Proceeds of Green Loans should be used for Green Projects that have clear environmental benefits. The borrowers should assess such environmental benefits.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ /07/ Interviews with stakeholders	The proceeds through Green/Transition Finance will be used for projects that contribute to the low and decarbonization of the MHI Group through projects related to climate change in MHI's materiality. The specific environmental improvement benefits have been evaluated by the issuer to reduce CO ₂ emissions.
0	1-①	The borrowers is recommended to quantify them where possible.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ /07/ Interviews with stakeholders	MHI is quantifying the environmental improvement benefits of its green/transition projects. Specifically, a calculation formula has been established in advance for the CO ₂ reduction effect and quantified. (Some projects include research and development for future environmental improvements and installation of



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
					equipment, making it difficult to disclose and quantify actual results.)
©	1-④	Borrowers should explain in advance the use of proceeds in documents including contracts exchanged between parties involved.	Yes No Not Applicable	Confirmed documents: /01//06/ Interviews with stakeholders	MHI plans to explain to investors in advance how the proceeds will be used through frameworks and other means.
©	1-⑤	The provision of the information regarding the use of proceeds should specify the Green Project categories.	Yes No Not Applicable	Confirmed documents: /01//06/ Interviews with stakeholders *This report	The proceeds will be used for one or more of the projects listed in the table below and will be explained to investors through the Framework, the Amended and Restated Shelf Registration Statement, and the results of the external review. Table MHI Green/Transition Finance Eligible Project Category green project
					Eligible business Eligibility Criteria and/or projects
					Renewable · Wind power (wind power plants)
					energy - Geothermal power (geothermal power plants)
					Clean energy • Hydrogen gas turbine (hydrogen power generation businesses and/or projects for100% hydrogen firing)
					Ammonia gas turbine (ammonia power generation businesses and/or the projects 100% ammonia firing)



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings	
					(Hydrogen/ammonia production green) Steam power (conversion to 100% ammonia firing) Gas engines for power generation 100% hydrogen firing)
					Eligible business and/or projects	Eligibility Criteria
					Decarbonize existing infrastructure	 Hydrogen gas turbine (cofiring) Ammonia gas turbine (cofiring) LNG-fueled high-efficiency gas turbine Steam power (conversion to 100% ammonia firing) Gas engine for power generation (hydrogen co-firing) Material handing (high efficiency and fuel cell powered)
					Build a hydrogen solutions ecosystem	Hydrogen production (blue or turquoise, etc.) Ammonia production (blue or turquoise, etc.) Hydrogen compressors (for



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings	nance Tramework Second Farty Opinion
					Build a CO ₂ solutions ecosystem	hydrogen production, transport, storage, etc.) • Metals machinery (hydrogen-reduced ironmaking, etc.) • CO ₂ Capture and Storage • CO ₂ transport (liquefied CO ₂ carries, etc.)
0	1-⑤	In cases where individual Green Projects have been specified, it is recommended that issuers clearly present the projects to lenders.	Yes No Not Applicable	Confirmed documents: /01//06//07/ Interviews with stakeholders	outline of the green, disclosure of the fra external review, tak and other factors. D projects and project	tion is clearly stated about the /transition project through mework and the results of the ing into account confidentiality etails of specific potential eligible is to which funds are to be ed to the external review irm eligibility.
©	1-⑥	In cases where Green Projects have incidental negative environmental impacts along with the alleged environmental benefits, borrowers should include information regarding these negative impacts (e.g., how they are assessed, how borrowers intend to address them) so that lenders and market participants can appropriately evaluate these impacts.	Yes No Not Applicable	Confirmed documents: /01//05//06//09/ Interviews with stakeholders	of the project are ta compliance with env regulations, and clea CO ₂ reductions durin process. In the oper	sociated with the implementation ken into consideration, such as vironmental laws, ordinances, and ar environmental benefits such as no the entire life cycle or in each ation and implementation of the nt department is working to nding environment.



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	1-⑦	In cases where Green Loan proceeds are used to refinance existing Green Projects, it is recommended that borrowers provide information to the lenders regarding (1) the amount (or the share) of the loan proceeds being allocated for refinancing, and (2) which Green Projects (or Green Project categories) may be refinanced. Furthermore, when using proceeds for refinancing Green Projects, the borrower is recommended to indicate the applicable period of the Green Project refinanced (Lookback Period).	Yes No Not Applicable	Confirmed documents: /01//02//03//04//05/ /06//07/ Interviews with stakeholders	DNV confirmed that the plan is to disclose the estimated amount (or percentage) of the portion of the proceeds used for refinancing on an annual basis on the website. If the inclusion of refinancing and its details are confirmed prior to the issuance of the bonds, the plan is to disclose the necessary information in legal documents, etc., in accordance with CTF 4-g).
0	1-⑦	When Green Loans are used multiple times to refinance an asset that requires long-term maintenance, the borrower should clearly disclose the asset's age, remaining life and the amount to be refinanced as of the time of procurement, evaluate the long-term sustainability of environmental benefits and receive an assessment from an outside agency for verification as necessary.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//05/ /06//07/ Interviews with stakeholders	There are no plans at this time to use refinancing for projects that have been in place for a long period of time.



GLGLs-2 Process for Project Evaluation and Selection

Ref.	Secti on	Requirements	Requirement check	Work Undertaken	DNV Findir	ngs	
©	2-①	Borrowers should provide lenders with information in advance regarding the following: the environmental sustainability objectives that the borrowers intend to achieve through the Green Loans;	Yes No Not Applicable	Confirmed documents: /01//02//03//04//12/ /13//14//15//16//17/ Interviews with stakeholders	green/trans strategy se International roadmaps of and the Mi Tourism, wh Paris Agree the Transition MHI has de roadmap, wh term target a plan to infit transition). disclosed as These are potentially the and the A Statement.	sition finance is conet forth in the Wo al Energy Agency of the Ministry of Ecinistry of Land, Infection are intended to ement. The purpose ion Strategy. eveloped a transition which incorporates size, and a strategic platroduce technologie Each goal under New follows. Dianned to be explained and Research and Research and Research and Research and Research for the follows.	vided by MHI through sistent with the low-carbon rld Energy Outlook of the and the sector-specific onomy, Trade and Industry frastructure, Transport and a align with the goals of the of this project is to achieve on strategy as a transition hort-term targets, mediuman for decarbonization (i.e., as that will contribute to the MHI's Transition Strategy is ned to investors in advance esults of the external review estated Shelf Registration
					Target	Reduce CO ₂	Reduce CO ₂ emissions
					year	emissions across MHI Group Scope 1&2*1	across MHI's value chain Scope 3*2 + reductions from CCUS
					2030	▲50% (compared to 2014)	▲50% (compared to 2019)
					2040	Net Zero	Net Zero
					*1: The calcu	ulation standard is bas	sed on the GHG Protocol.



Ref.	Secti on	Requirements	Requirement check	Work Undertaken	DNV Findings
					*2: The calculation standard is based on the GHG Protocol. However, we also account for reductions achieved by CCUS as an MHI original index. Reference: The short-term target is set in the MHI Group's Fifth Environmental Target (FY2021-FY2023) as "a 9% improvement in CO2 emissions per unit of production from offices and plants in FY2023 compared to FY2014".
	2-①	Borrowers should provide lenders with information in advance regarding the following: the criteria for determining the appropriateness of Green Projects based on the environmental sustainability objectives described above;	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	It was confirmed through the framework and assessment that the eligibility of MHI's green/transition projects is described in terms of what assessment criteria (standards) are based on. Specifically, the criteria are as follows - Climate Transition Finance Handbook International Capital Markets Association (ICMA), 2020 - Basic Guidelines on Climate Transition Finance Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment, 2021 - Green Bond Principles International Capital Markets Association (ICMA), 2021 - Green Bond Guidelines Ministry of the Environment, 2020 - Green Loan Principles Loan Market Association et al. (LMA et al.), 2021 - Green Loan Guidelines Ministry of the Environment, 2020 These will be clearly stated in the Framework and are



Ref.	Secti on	Requirements	Requirement check	Work Undertaken	DNV Findings
					planned to be explained to investors in advance through the Amended and Restated Shelf Registration Statement and other means.
0	2-①	Borrowers should provide lenders with information in advance regarding the following: the process for determining how Green Projects fit the criteria for the achievement of the environmental sustainability objectives.	Yes No Not Applicable	Confirmed documents: /01//08//09/ Interviews with stakeholders	DNV confirmed that within the framework there is a description of what process was used to determine the selection of green/transition projects. 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 confirmed that the plan is to be implemented in accordance with the appropriate processes.
0	2-⑥	It is recommended that the borrower explains to lenders in advance any environmental standards or certification that the borrower will refer to in evaluating and selecting a Green Project to be financed.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ /12//13//14//15//16/ /17/ Interviews with stakeholders	The Transition Strategy, which is the basis for evaluation and selection of Green/Transition Finance, is MHI's transition roadmap based on the International Energy Agency Roadmap and the sectoral roadmaps of the Ministry of Economy, Trade and Industry and Ministry of Land, Infrastructure and Transport, with specific goals (short, medium and long-term) and plans. These will be explained to investors through the Framework and Second Party Opinions. There are no environmental standards or certifications for individual projects. Some activities are included through subsidized projects and alliances.



Ref.	Secti on	Requirements	Requirement check	Work Undertaken	DNV Findings
•	2-⑦	If the borrower intends to establish exclusion criteria to identify and control such potentially material environmental and social risks of Green Projects, the borrower should explain them to lenders in advance as part of the criteria it applies.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//05/ /06//09/ Interviews with stakeholders	 MHI has eliminated the following transactions as a response to materiality Green/Transition Finance Not specified separately. Transactions that do not meet the policies and standards in the sustainability framework CSR Code of Conduct Policy on Human Rights 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
0	2-⑨	It is recommended that internal departments who have expertise, such as the environment related department, or external institutions are involved in the evaluation and selection process of Green Projects to ensure suitability from an environmental point of view.	Yes No Not Applicable	Confirmed documents: /01//08//09/ Interviews with stakeholders	DNV confirmed that the selection of transition projects is described within the framework as to what process the decision was based on. 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 confirmed that the plan is to be implemented in accordance with the appropriate processes.



Ref.	Secti on	Requirements	Requirement check	Work Undertaken	DNV Findings
0	2-111	It is recommended that borrowers position their environmental objectives and criteria and information on their processes in the context of their comprehensive objectives, strategy, policies concerning environmental sustainability (e.g. medium-term management plan, sustainability strategy, CSR strategy) and provide an explanation to lenders.	Yes No Not Applicable	Confirmed documents: /01//02//03//04//06/ /12//13//14//15//16/ /17/ Interviews with stakeholders	The Transition Strategy, which is the basis for evaluation and selection of Green/Transition Finance, is MHI's transition roadmap based on the International Energy Agency Roadmap and the sectoral roadmaps of the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, with specific targets (short, medium and long-term) and plans. These will be explained to investors through the Framework and Second Party Opinions. MHI's transition strategy is closely related to its Mission Net Zero, 2021 Business Plan (2021-2023), and TCFD-based initiatives.



GLGLs-3 Management of proceeds

Ref.	Secti on	Requirements	Requirement check	Work Undertaken	DNV Findings
©	3-①	Borrowers should track and manage the entire amount of Green Loan proceeds. These tracking and managing activities should be controlled by the borrower's internal processes.	Yes No Not Applicable	Confirmed documents: /01//08//10//11/ Interviews with stakeholders	DNV confirmed that MHI plans to manage the proceeds so that the total green/transition eligible project amount is not less than the amount of green/transition financing issued, either in the accounting system or in separate internal documents. Through interviews with stakeholders and actual results, DNV confirmed that there is an operation (system) that can be tracked and verified by the abovementioned fund management.
•	3-②	As long as the Green Loans are outstanding, borrowers should conduct periodic checks (at least yearly) to ensure that the amount used for Green Projects is equal to, or greater than, the amount raised by the procurement of Green Loans or the sum of the amount used for Green Projects and the amount of the unallocated proceeds match the total amount of Green Loan proceeds.	Yes No Not Applicable	Confirmed documents: /01//08//10//11/ Interviews with stakeholders	DNV confirmed that MHI plans to monitor the allocation of the proceeds on a regular basis (at least once a year) based on data extracted from its accounting system to confirm that the requirements are satisfied.
©	3-②	If any of the proceeds remain temporarily unallocated, the borrower should explain to lenders how it intends to invest the balance of such unallocated funds and endeavor to promptly use such funds for Green Projects.	Yes No Not Applicable	Confirmed documents: /01//06//10//11/ Interviews with stakeholders	DNV has explained to investors that MHI will track the balance of unallocated proceeds through its internal control system and how it will manage such funds (i.e., in cash and cash equivalents). In addition, DNV confirmed that MHI plans to allocate the funds to the subject project (including refinancing) in a timely manner. In addition, DNV confirmed that unallocated funds are planned to be allocated within three years, taking into account that the projects include long-term



Ref.	Secti on	Requirements	Requirement check	Work Undertaken	DNV Findings
					projects, and that if there is a significant excess, it will be reported in the reporting, etc., along with the reasons for the excess.
O	3-④	In advance, borrowers should provide lenders with information on how Green Loan proceeds will be tracked and managed.	Yes No Not Applicable	Confirmed documents: /01//08//10//11/ Interviews with stakeholders	DNV confirmed that the issuer has internal processes in place to track the funds raised. It confirmed that these are planned to be explained to investors in the framework or otherwise.
0	3-⑤	It is recommended that borrowers keep evidenced documents appropriately that demonstrate how they tracked and managed Green Loans proceeds.	Yes No Not Applicable	Confirmed documents: /01//08//10//11/ Interviews with stakeholders	DNV confirmed that there is an internal process in place to ensure that documents related to the management of proceeds are properly retained throughout the outstanding period in accordance with MHI's regulations for document management.



GLGLs-4 Reporting

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
©	4-①	Borrowers should report the latest information on the use of Green Loan proceeds to the financial institutions who are lenders and took part in the Green Loans after the procurement.	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	DNV has confirmed that MHI plans to report (annually) on the status of the allocation of proceeds from the Green/Transition financing issue and the environmental benefits of the financing at least until the year following the completion of the allocation, beginning with the year following the issuance of the Green/Transition financing. The annual report will be disclosed on MHI's website.
©	4-②	For a borrower to gain public acceptance by expressing that the procured loans are Green Loans, they need to ensure transparency. For this reason, if a borrower expresses that the procured loans are Green Loans, it should publicly disclose the latest information on the use of Green Loan proceeds after the procurement.	Yes No Not Applicable	Confirmed documents: /01/ Interviews with stakeholders	If MHI intends to finance green/transition financing through a loan, it will state that it is a transition loan and will disclose to the public updated information about the use of the funds on its website.
©	4-④	Borrowers should report or disclose the usage status of funds at least once a year until all the proceeds are used. Borrowers should report or disclose such information in a timely manner even after all the proceeds are allocated if there has been any major change in the situation.	Yes No Not Applicable	Confirmed documents: /01//06//07//09//10/ Interviews with stakeholders	Same as 4-①. The committee confirmed that even after allocations are completed, any changes in transition strategies or paths, major changes in allocation plans or project implementation status (e.g., suspension of a project that has initiated allocations, significant deferrals on an annual basis, sale or retirement, etc.) will be reported in a timely manner or in the reporting.
©	4-⑤	Reported or disclosed information should include the following contents: <matters or<="" pertaining="" reporting="" td="" to=""><td>Yes No Not Applicable</td><td>Confirmed documents: /01//06//10//11/</td><td>The information to be disclosed will include the following for confidentiality reasons</td></matters>	Yes No Not Applicable	Confirmed documents: /01//06//10//11/	The information to be disclosed will include the following for confidentiality reasons



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
		disclosure> - A list of the Green Projects to which Green Loan proceeds have been allocated - A brief description of each Green Project (including up-to-date progress) - The amount allocated to each Green Project - The expected environmental benefits of each Green Project - Information regarding unallocated Green Loan proceeds (the amount of the unallocated proceeds or the share of the unallocated proceeds to the total amount of the proceeds, and when the unallocated proceeds are expected to be allocated to Green Projects) A borrower is small-medium, reported and disclosed information can be simplified, if it is difficult to disclose the same contents which a borrower reports to a lender.		Interviews with stakeholders	The planned timing of the allocation is within 3 years after procurement, and the investment method is expected to be managed with cash or cash equivalents. Reporting will be published on the website. <allocation status=""> Status of allocation to eligible businesses and/or projects, overview with up-to-date progress Amount or share of unallocated proceeds, allocation schedule, and the method to manage unallocated proceeds Ratio of new financing to refinancing <environmental benefits=""> The environmental improvement effects should be within the scope of confidentiality obligations, to the extent practicable, and in consideration of the characteristics of the project, including an overview of the project (including the progress of research and development, operation, etc.), the assumed environmental benefits (e.g., tons-CO₂/year, etc. (Reduction effect is calculated based on the number of facilities installed, number of facilities sold, or basic unit (g- CO₂/kWh), etc.)</environmental></allocation>
0	4-⑥	If Green Loan proceeds have been allocated to the refinancing of existing projects, it is recommended that disclosed information include: (1) the approximate amount (or the share) of the allocated proceeds used for refinancing, and (2) a list of the Green Projects (or the project categories)	Yes No Not Applicable	Confirmed documents: /01//06//07/ Interviews with stakeholders	DNV confirmed that MHI plans to disclose the estimated amount (or percentage) of the portion of the procured funds allocated to refinancing in an annual report on its website, if the funds are used for refinancing.



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	4-⑦	refinanced. While it is recommended to disclose (v) and (vi) on a project-by-project basis, if there are confidentiality agreements, competitive considerations, or a large number of underlying projects that limit the disclosure of details, it is considered that information is presented in generic terms or in an aggregated portfolio.	Yes No Not Applicable	Confirmed documents: /01//06//07/ Interviews with stakeholders	It was confirmed that information disclosure would be on a per green/transition project basis, but may be in an aggregated format depending on the situation, taking into account confidentiality agreements, etc.
©	4-100	When disclosing information regarding the expected environmental benefits of projects, borrowers should use appropriate indicators, while ensuring consistency with the characteristics of Green Projects.	Yes No Not Applicable	Confirmed documents: /01//06//07/ Interviews with stakeholders	The environmental benefits will be based on the CO ₂ reduction benefits, but will use the appropriate stated indicators depending on the nature of the project for which green/transition financing is being allocated.
0	4-11)	When disclosing the expected environmental benefits of projects, it is recommended that borrowers, where feasible, use quantitative indicators and disclose information on methodologies and/or assumptions as well as these indicators.	Yes No Not Applicable	Confirmed documents: /01//06//07/ Interviews with stakeholders	Environmental improvement benefits will be disclosed using quantitative indicators, but will be conducted on a per-qualified-criteria basis, taking into consideration confidentiality and the rationality of the evaluation process. The calculation method will be disclosed to the extent necessary.





GLGLs-5 Internal Review

Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
©	5-(3)②	If the borrower performs self- certification, it should inform the lenders in advance and explain with sufficient transparency its internal expertise upon formulation of the self- certification process pertaining to the green loan framework.	Yes No Not Applicable	Confirmed documents: /01//06//07//09/ /10/ Interviews with stakeholders *This report	MHI utilizes reviews by external organizations as an objective evaluation. When conducting self-evaluations in the future, MHI plans to explain to borrowers that it conducts evaluations in accordance with the Framework and internal processes.
•	5-(3)③	Borrowers are recommended to document their internal expertise. This documentation should be communicated to the lenders on request. The self-certification results should also be reported to the lenders on request.	Yes No Not Applicable	Confirmed documents: /01//06//07//09/ /10/ Interviews with stakeholders	MHI has established a documented internal process for the project evaluation and selection process and the management of proceeds. MHI will report on the results of these processes when requested by lenders.
©	5-(3)④	When appropriate, and taking into account confidentiality and competitive considerations, borrowers should make publicly available, via their website or otherwise, their decision to review the Green Loan based on self-certification as well as the parameters based on which they assess Green Projects and the internal expertise they have to assess such parameters.	Yes No Not Applicable	Confirmed documents: /01//06//07//09/ /10/ Interviews with stakeholders	MHI intends to disclose to the public that it conducted its self-assessment using loans in Green/Transition Finance in accordance with the internal process previously defined in the Framework and the results of the assessment.



Ref.	Section	Requirements	Requirement check	Work Undertaken	DNV Findings
0	5-(3)4	For a borrower to gain public approval by expressing that the procured loans are Green Loans, they need to ensure transparency. It is therefore recommended that they make the self-certification results publicly available via their website or otherwise.	Yes No Not Applicable	Confirmed documents: /01//06//07//09/ /10/ Interviews with stakeholders	MHI plans to disclose the results of its self-assessment to the public through its website and other means when utilizing loans for green/transition financing based on self-assessment only.

CBS-MRE-1 The Marine Renewable Energy Sector Eligibility Criteria of the Climate Bonds Standard

CBS-MRE-1 The Marine Renewable Energy Sector Eligibility Criteria of the Climate Bonds Standard, Illustrative use of bond proceeds eligible under the Marine renewable energy criteria (Table-1)

Assets	No.	Criteria	Requirement check	Work Undertaken	DNV Findings
Offshore wind Assets that operate or are under construction to operate:	1	Offshore wind energy generation facilities	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	The projects to be verified (candidate projects for allocation) are those related to the construction, installation, operation, and maintenance of offshore wind power.
	2	Dedicated transmission infrastructure and support facilities (e.g., transformers, backbone, transmission terminus, grid connections, dedicated facilities for support vessels and vehicles, equipment storage, onshore assembly)	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	Projects subject to verification (subject to potential allocation) are dedicated transportation and support-related equipment, including projects involving the purchase and installation of such equipment.



Assets	No.	Criteria	Requirement check	Work Undertaken	DNV Findings
	3	Dedicated operational production, manufacturing or distribution facilities for key components, such as wind turbines, platforms etc.	Yes No Not Applicable	N/A	N/A



DNV

CBS-MRE-2 The Marine Renewable Energy Sector Eligibility Criteria of the Climate Bonds Standard, Disclosure Component

Criteria	Requirement check	Work Undertaken	DNV Findings
 Project location and size, including description of marine and coastal ecosystem in proximity to planned installations, noting for example whether located in marine protected areas or vulnerable marine ecosystems; Projected life span of the asset/project; Key stakeholders involved, including other users of the area and surrounding area (sea, land or air depending on what is applicable) of the facility(ies); Description of project activities including details on installation, operation and decommissioning activities; Expected/current facility capacity and generation during and after the life of the bond; Details of where the energy generated is being fed into, and estimated impact on grid mix; Projected avoided GHG emissions compared to fossil fuel counterfactual (in kgCO₂e) using recognised conversion factors; The planning standards, environmental regulations and other regulations that the project has been required to comply with. 	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	We confirmed that the subject project has a procedure to confirm conformity to this requirement during the project evaluation and selection process.

- Note 1: Where the bond portfolio includes several separately identifiable projects or groups of assets, these conditions must be met for each separately identified project or asset grouping. Bond issuers should determine these project boundaries, which may be based on geographical and/ or supply chain linkages.
- Note 2: Verifiers are required to check that the issuer has disclosed the above information, but are not required to verify the accuracy of the information provided. It is the issuer's responsibility to provide correct information to the verifier, potential investors and the market in general.

CBS-MRE-3 The Marine Renewable Energy Sector Eligibility Criteria of the Climate Bonds Standard, Mitigation Component



Criteria	Requirement check	Work Undertaken	DNV Findings
 The asset is 100% dedicated to renewable energy Any fossil fuel back up in place is limited to: Powering monitoring, operating and maintenance equipment in the event of no renewable power in the system Powering resilience or protection measures in the event of no renewable power in the system Restart capability 	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	We confirmed that the subject project has a procedure to confirm conformity to this requirement during the project evaluation and selection process.

CBS-MRE-4 The Marine Renewable Energy Sector Eligibility Criteria of the Climate Bonds Standard, Adaptation & Resilience Requirements, Checklist for evaluating the Issue's Adaptation and Resilience performance in respect of a marine renewable energy facility (table-5)

No.	Criteria	Requirement check	Work Undertaken	DNV Findings
1.1	Processes are in place (as part of both the asset design and ongoing management) to assess key risks to the assets from a changing climate and its impact on marine conditions. These key risks should include the following, plus any others felt to be of concern for the operation of these assets. The risks should be identified and interpreted in terms of the impact on the asset and the related effects for the business –e.g. impact on operating feasibility and schedules and potential system outages, impact on maintenance requirements etc. For all facilities Sea level rise and storm surge Extreme precipitation and flooding Increase in geophysical hazards such as earthquakes, tsunamis, volcanic eruptions and landslides Changes in wind and storm patterns and intensity Changes in ocean temperature, currents and salinity levels	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	We confirmed that the subject project has a procedure to confirm conformity to this requirement during the project evaluation and selection process.



No.	Criteria	Requirement check	Work Undertaken	DNV Findings
	The issuer understands what level of climate change would mean the asset/site is no longer viable, and understands under which climate change scenarios this would happen. These processes and assessments use climate information, modelling and scenarios based on peer reviewed methodologies and literature and considering the variability in modelled scenarios. If a project does not have any climate related risks or vulnerabilities evidence must begiven to show how this was determined.			
2.1	Processes are in place (as part of both the asset design, ongoing operation and decommissioning) to assess the improvements and impacts the asset has on the resilience of other stakeholders in the system in which it operates These assessments address: • Any ways in which renewable energy facilities might affect, both positively and negatively, the climate resilience of other marine users or relevant/local stakeholders/communities • Any ways in which renewable energy facilities improve the adaptation capacity of other marine users or relevant/local stakeholders/communities. e.g., Any potential impacts on other marine stakeholders of a highly dense concentration of renewable energy facilities or associated transmission lines? e.g., Any potential impacts that renewable energy facilities may have on coastal resilience by taking strength out of the wind, waves, tidal flows, tidal range or by altering sedimentation processes? If a project does not have any impacts beyond the asset/site evidence must be given to show how this was determined.	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	For the subject project, we confirmed that the project evaluation and selection process is a procedure to confirm conformity to this requirement. In addition, we confirmed that the project implementation phase has a procedure to confirm conformity to these requirements in the process of compliance with existing laws and regulations.
3.1	An adaptation plan has been designed and is being implemented to address the risks identified in assessments outlined above. All risks identified are being addressed in the design and management of the asset.	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	For the subject project, we confirmed that the project evaluation and selection process is a procedure to confirm conformity to this requirement. In



No.	Criteria	Requirement check	Work Undertaken	DNV Findings
	The issuer has designed or amended asset maintenance plans to ensure that scheduled maintenance is sufficient to cope with the ongoing impacts of climate change and a plan has been established to govern how they approach emergency maintenance needs arising from sudden climate change impacts (e.g., extreme storms) The issuer has remotely controlled or automated shutdown procedures, training, capacity and governance arrangements in place to manage the impacts of exceptional events (such as extreme storms, winds etc.) The issuer has monitoring and reporting systems and processes to identify high risk scenarios The issuer has contingency plans to address disruptions to operations or loss of the asset and any resulting environmental or social damage. The issuer has processes for feeding risk assessments back into decision making The issuer has a budget allocated to implementing the adaptation plan and has a named member of staff responsible for its implementation. The issuer complies with any existing broader or higher-level adaption plans, such as NAPAs (National Adaptation Programs of Action).			addition, we confirmed that the project implementation phase has a procedure to confirm conformity to these requirements in the process of compliance with existing laws and regulations.
3.2	Inspections are carried out regularly and there is a maintenance regime in place for future inspections with evidence that this is adhered to.	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	DNV confirmed that the subject project has a system in place to ensure that it is operated in accordance with the same internal rules and regulations as the existing facility, in a manner consistent with this requirement.



No.	Criteria	Requirement check	Work Undertaken	DNV Findings
4.1	Issuer is involved in stakeholder engagement and collaboration (i.n. policy development, consultation, collaboration and active engagement with other marine users) e.g., Engaging in hazard response planning for the area, or recovery planning and operations after severe events e.g., Pursuing potential climate resilience benefits for the local area that could be delivered by the marine renewable energy facility, such as a tidal lagoon providing additional storm surge protection for local towns e.g., Alterations made to day-to-day operating procedures in response to stakeholder engagement	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	We confirmed that the subject project will be operated in accordance with the same internal rules and regulations as the existing facility, in a manner consistent with this requirement.
5.1	The asset or project does not put in jeopardy at risk or endangered species or habitats or unduly impact ecosystem services. Where there are possible negative impacts to habitats, species, biodiversity, or ecosystem services, mitigation measures are implemented to offset the negative impacts. E.g., Noise and vibration generated by marine renewable energy arrays may disrupt animals, such as marine mammals, fish, birds, turtles, and invertebrates that rely on sound for navigation and other essential functions. The potential for collision-related injury or mortality of marine animals is a key parameter for impact assessment, particularly for tidal energy projects. Alteration of water circulation, sediment transport, and other physical flows by marine renewable energy devices as well as introduction of new electromagnetic fields (e.g., via suspended or seafloor cables) may negatively impact habitat quality. This might be especially relevant for tidal barrage, but should be considered for all marine renewable arrays. N.B. In many jurisdictions this will be well covered by existing regulatory or licensing requirements, and those can be referenced here if they provide sufficient evidence to cover this requirement.	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	We confirmed that the subject project has a procedure to confirm conformity to this requirement during the project evaluation and selection process.



No.	Criteria	Requirement check	Work Undertaken	DNV Findings
5.2	Waste is responsibly dealt with, including appropriate disposal of construction waste and oil-based lubricants, including recycling options where possible. Also, recycling where possible of equipment after decommissioning. N.B. In many jurisdictions this will be well covered by existing regulatory or licensing requirements, and those can be referenced here if they provide sufficient evidence to cover this requirement.	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	We confirmed that the subject project has procedures to confirm conformity to this requirement in the project evaluation and selection process and in the operation process based on internal rules and regulations.
5.3	The issuer has recognized and listed the potential risks for accidental site contamination either from leakage of hydraulic fluid (or any other potential pollutant) or from wreckage/debris on the sea bed. Demonstrable steps have been taken to minimize these risks and plans have been made for clean-up should a site contamination event occur.	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	We confirmed that the subject project has procedures to confirm conformity to this requirement in the project evaluation and selection process and in the operation process based on internal rules and regulations.
5.4	Decommissioning of the plant is planned in a way that considers the environmental impacts N.B. In many jurisdictions this will be well covered by existing regulatory or licensing requirements, and those can be referenced here if they provide sufficient evidence to cover this requirement.	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	We confirmed that the subject project has procedures to confirm conformity to this requirement in the project evaluation and selection process and in the operation process based on internal rules and regulations.
5.5	Issuer has plans and processes in place to effectively manage and minimize conflict with other users of the marine and coastal space. N.B. In some jurisdictions this will be well covered by existing regulatory or licensing requirements, national or regional marine plans and/ or marine spatial plans, and the application of or conformity with these regulations or plans can be referenced here if they provide sufficient evidence to cover this requirement.	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders	We confirmed that the subject project has procedures to confirm conformity to this requirement in the project evaluation and selection process and in the operation process based on internal rules and regulations.





CBS-WE-1 Wind Sector Eligibility Criteria of the Climate Bonds Standard (ver1.1)

Green Project Eligibility Assessment Checklist https://www.climatebonds.net/standard/wind

Wind Sector Eligibility Criteria of the Climate Bonds Standard Version 1.2

CBS-WE-1 Wind Sector Eligibility Criteria of the Climate Bonds Standard Version 1.1, Illustrative use of bond proceeds eligible under the wind criteria (Table-1)

Assets	No.	Criteria	Requirement check	Work Undertaken	DNV Findings
Onshore wind Assets that operate or are under construction to operate:	1	Onshore wind energy generation facilities	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders -	The projects to be verified (candidate projects for allocation) are those related to the construction, installation, operation, and maintenance of onshore wind power generation.
	2	Dedicated transmission infrastructure and support facilities (e.g., transformers, backbone, transmission terminus, grid connections, dedicated facilities for support vessels and vehicles, equipment storage, onshore assembly)	Yes No Not Applicable	Confirmed documents: - /01//06/ Interviews with stakeholders -	The projects to be verified (candidate projects for allocation) are those related to the connection to the existing power transmission (distribution) facilities, including their purchase and installation work.
	3	Dedicated operational production, manufacturing or distribution facilities for key components, such as wind turbines, platforms etc.	Yes No Not Applicable	N/A	N/A

The assets listed in Table 1 automatically meet the climate bond standard mitigation requirements and are shown below.

[•]Wind farms are projects and assets related to operation and construction for one or more of the following activities:



- -Development, construction and operation of wind power
- -Operation-related products and manufacturing equipment dedicated to wind power development as a whole
- -Overall transportation equipment dedicated to wind power



CBS-WE-2 Wind Sector Eligibility Criteria of the Climate Bonds Standard Version 1.1, Assets and projects not eligible for certification under the wind criteria

Assets	No.	Criteria	Requirement check	Work Undertaken	DNV Findings
Offshore wind	1	Offshore wind facilities, dedicated transmission infrastructure, dedicated support facilities, manufacturing facilities and distribution facilities are not eligible for Certification under the Wind Criteria. Offshore wind is eligible for Certification under the Marine Renewable Energy Criteria.	Yes No Not Applicable	Confirmed documents: • /01//06/ Interviews with stakeholders	Candidate projects related to onshore wind power generation facilities subject to verification (subject to candidate allocation) are not projects related to offshore wind power generation facilities.



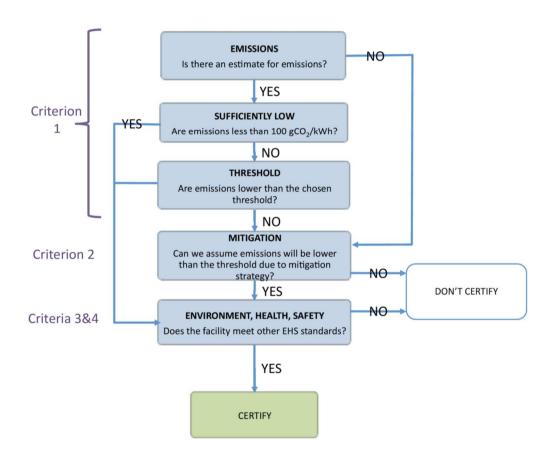
CBS-GE-1 Checklist for eligibility criteria of geothermal energy

The outline is as follows and the flow on the right.

- /1/ Incidental CO₂ emission factor (g-CO₂ /kWh) must be calculated.
- /2/ Incidental CO₂ emission factor lower than 100 g -CO₂ /kWh
- /3/ Incidental CO₂ emissions (g-CO₂ /kWh) sufficiently lower than the existing grid
- /4/ Satisfying relevant environmental and occupational health and safety requirements
- /5/ (Must be a CDM project)

For more details, please refer to the detailed checklist on the next page and beyond.

Figure 1: Decision tree structure of the criteria





Criterion	Title	Requirements	Requirement check	Work Undertaken	DNV GL Findings
1	Emissions threshold	Exclude the project if: Direct operational carbon intensity > nationally-specific threshold (gCO ₂ /kWh) of the geothermal facility where carbon intensity =annual direct CO ₂ emissionsnameplate capacity ⁵ x capacity factor ⁶ and nationally-specific threshold = combined margin of national grid (see Annex 2) - ambition margin or 100 gCO ₂ /kWh, whichever is higher In the case of a co-generating plant, the denominator of the carbon intensity formula should also include a term for end use energy in heat applications. Applicants must also undertake to measure field emissions before and after the construction of a new facility, or the realization of any other project that could alter the rate of release of NCGs (non-condensable gases). The ambition margin is likely to be determined through an iterative process and be country-specific based on available information on what is typical, and what ambitious, for geothermal plants in the relevant country. It may be zero in countries where the combined margin is already low-geothermal power stations would simply need to outperform the combined margin. In countries where the combined margin is high, investors will need reassurance that the facility significantly outperforms probable fossil fuel equivalents, therefore it will be greater than zero. See Annex2 worked examples for further discussion. Facilities with negligible or low direct emissions, that is less than 100gCO ₂ /kWh, are deemed to be comparable with other low carbon options (renewables or nuclear) in lifecycle terms and need not be compared with the threshold. This allows geothermal facilities in countries with very low fossil fuel capacity and a resulting very low combined margin, such as Iceland, to still be certified.		Confirmed documents: /01//06//09//18/ Interviews with stakeholders	The candidate geothermal power system was confirmed to be a two-phase fluid transport and double-flush system. No specific projects have been decided at this time. DNV confirmed that MHI plans to verify that its CO ₂ emission factor is below the standard as soon as the project is finalized, and that it has established procedures to do so.



Criterion	Title	Requirements	Requirement check	Work Undertaken	DNV GL Findings
2	Emissions mitigatio n technolog y and/or plant design	(Only applies to cases which have not passed Criterion1) Include the project (subject to further criteria) if mitigation technologies will be deployed at the facility such that releases of NCGs to the atmosphere are rendered negligible. At the current time, this is taken to mean any plant design (binary, combined cycle or other) that incorporates total fluid reinjection8. The list of technologies that are assumed to reduce emissions to negligible may be expanded as the Standard matures. § It has been suggested that processes which capture the CO2 for industrial use should also be considered under this criterion to result in zero emissions. However, CO2 captured for, for example, the soft drink industry, will still be released to the atmosphere, and this practice would most likely not result in any net reduction in emissions overall.	Yes No Not Applicable	N/A	N/A
3	Environm ental, health, safety and social criteria	- Projects are required to comply with best practice international guidelines/ standards on environmental, health and safety (EHS) for geothermal power generation (e.g. IFC/World Bank). As these detailed EHS guidelines contain guidance on air emissions, note that compliance with them is a necessary but not sufficient requirement for certification, as the emissions performance required for Climate Bonds certification is more stringent. In addition, the IFC have advised us that the applicability of EHS Guidelines should be tailored to the hazards and risks established for each project on the basis of the results of an environmental assessment in which site-specific variables are taken into account.	Yes No Not Applicable	N/A	N/A



Criterion	Title	Requirements	Requirement check	Work Undertaken	DNV GL Findings
		- Meeting IFC Performance Standards on Environmental and Social Sustainability ¹⁰ are strongly recommended (e.g. IFC PS5 Land Acquisition and Involuntary Resettlement, or IFC PS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources). 10 See www.ifc.org/sustainabilityframework			
4	Environm ental, health, safety and social criteria	Any Enhanced Geothermal Systems project must comply with US Department of Energy Protocol for Addressing Induced Seismicity Associated with Enhanced Geothermal Systems11. ¹¹ https://www1.eere.energy.gov/geothermal/pdfs/geothermal_seismicity_protocol_012012.pdf	Yes No Not Applicable	N/A	N/A
5		(Where applicable supersedes Criteria 1&2) If a Project Design Document (PDD) relating to the geothermal project has been reviewed and registered under the Clean Development Mechanism, the project will be accepted without need to comply with Criteria1&2, subject to scrutiny of the PDD, and unless any serious concerns have been raised subsequent to registration.	Yes No Not Applicable	N/A	N/A



EU-MFR-Hydrogen Hydrogen production eligibility checklist

EU-MFR-Hydrogen-1 Hydrogen production (NACE 4, code C20.11)

Sector	Requirements	Requirement check	Work Undertaken	DNV Findings
Manufacture of hydrogen	 <description> Manufacture of hydrogen and hydrogen-based synthetic fuels. The economic activities in this category could be associated with NACE code C20.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. </description> <substantial contribution="" criteria=""> The activity complies with the life-cycle GHG emissions savings requirement of 73.4% for hydrogen [resulting in life-cycle GHG emissions lower than 3tCO2e/tH2] and 70% for hydrogen-based synthetic fuels relative to a fossil fuel comparator of 94g CO2e/MJ in analogy to the approach set out in Article 25(2) of and Annex V to Directive (EU) 2018/2001. </substantial> Life-cycle GHG emissions savings are calculated using the methodology referred to in Article 28(5) of Directive (EU) 2018/2001 or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018. 	Yes No Not Applicable	Confirmed documents: /01//06//09//18/ Interviews with stakeholders	We confirmed that the green project candidate is hydrogen/ammonia production using renewable energy and that lifecycle GHG emissions will be calculated when actually considering the allocation of funds for the green project and will only be allocated if eligible. In selecting projects, we confirmed that procedures have



Sector	Requirements	Requirement check	Work Undertaken	DNV Findings
	 <dnsh> No Significant Adverse Effect Do Not Significant Harm</dnsh> Climate adaptation: The activity complies with the criteria set out in Appendix A to this Annex. Pollution discharged into the atmosphere (emissions associated with the generation of electricity during electrolysis) Water use: The activity complies with the criteria set out in Appendix B to this Annex. (degradation of local water resources) Pollution prevention: The activity complies with the criteria set out in Appendix C to this Annex. Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the relevant best available techniques (BAT) conclusions, including: 			been established to ensure that they do not conflict with the Exclusion Criteria, in accordance with the approaches to environmental and social risk reduction set forth in the Framework.
	 a. the best available techniques (BAT) conclusions for the production of chlor-alkali and the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; b. the best available techniques (BAT) conclusions for the refining of mineral oil and gas. No significant cross-media effects occur. Generation of waste products (catalysts, physical and chemical processes, refining processes) Biodiversity: The activity complies with the criteria set out in Appendix D to this Annex. 			



EU-NFF-Electricity Non-Fossil Fuel Electricity Generation Eligibility Checklist

EU- NFF Electricity generation from renewable non-fossil gaseous and liquid fuels (NACE 4, codes D35.11 & F42.22) * Excluding biomass & biogas power generation

Sector	Requirements	Requirement check	Work Undertaken	DNV Findings
Electricity generation from renewable non-fossil gaseous and liquid fuels Non-fossil fuel power generation	Construction or operation of electricity generation facilities that produce electricity using gaseous and liquid fuels of renewable origin. This activity does not include electricity generation from the exclusive use of biogas and bio-liquid fuels (see Section 4.8 of this Annex). The economic activities in this category could be associated with several NACE codes, in particular D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Substantial contribution criteria> 1. Life-cycle GHG emissions from the generation of electricity using renewable gaseous and liquid fuels are lower than 100gCO ₂ e/kWh. Life-cycle GHG emissions are calculated based on project-specific data, where available, using Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018. Quantified life-cycle GHG emissions are verified by an independent third party. 2. Where facilities incorporate any form of abatement (including carbon capture or use of decarbonized fuels), that abatement activity complies with the criteria set out in the relevant Section of this Annex, where applicable.	Yes No Not Applicable	Confirmed documents: /01//06//09//18/ Interviews with stakeholders	Candidate green projects include the development and manufacture of gas turbines in power generation using only hydrogen/ammonia production produced from renewable energy sources, and lifecycle GHG emissions will be calculated when actually considering the allocation of proceeds for green projects, and confirmed that the funds will be allocated, only if eligible. In selecting projects, we confirmed that procedures have been established to ensure that they do not conflict with the Exclusion Criteria, in accordance with the approaches to



Sector	Requirements	Requirement check	Work Undertaken	DNV Findings
	Where the CO2 that would otherwise be emitted from the electricity generation process is captured for the purpose of underground storage, the CO2 is transported and stored underground, in accordance with the technical screening criteria set out in Sections 5.11 and 5.12 of this Annex.			environmental and social risk reduction set forth in the Framework.
	 3. The activity meets either of the following criteria: a. at construction, measurement equipment for monitoring of physical emissions, such as methane leakage is installed or a leak detection and repair program is introduced; b. at operation, physical measurement of methane emissions is reported and leak is eliminated. 4. Where the activity blends renewable gaseous or liquid fuels with biogas or bioliquids, the agricultural biomass used for the production of the biogas or bioliquids complies with the criteria laid down in Article 29, paragraphs 2 to 5, of Directive (EU) 2018/2001 while forest biomass complies with the criteria laid down in Article 29, paragraphs 6 and 7, of that Directive. 			
	 <dnsh> Climate adaptation: The activity complies with the criteria set out in Appendix A to this Annex. Water: The activity complies with the criteria set out in Appendix B to this Annex. </dnsh> Pollution prevention: Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the latest relevant best available techniques (BAT) conclusions, including the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur. 			



Sector	Requirements	Requirement check	Work Undertaken	DNV Findings
	For combustion plants with thermal input greater than 1 MW but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193 of the European Parliament and of the Council. • Biodiversity: The activity complies with the criteria set out in Appendix D to this Annex.			
(Contribution to climate adaptation)	 The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that substantially reduce the most important physical climate risks that are material to that activity. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment with the following steps: screening of the activity to identify which physical climate risks from the list in Appendix A to this Annex may affect the performance of the economic activity during its expected lifetime; where the activity is assessed to be at risk from one or more of the physical climate risks listed in Appendix A to this Annex, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity; an assessment of adaptation solutions that can reduce the identified physical climate risk. The climate risk and vulnerability assessment are proportionate to the scale of the activity and its expected lifespan, such that: 	Yes No Not Applicable	Confirmed documents: /01//06//09//18/ Interviews with stakeholders	With regard to the reduction of climate change risks, including climate change adaptation, in the efforts to reduce environmental and social risks specified in the Framework at the time of project selection, DNV confirmed that procedures are in place to conduct technical due diligence when necessary to ensure that the exclusion criteria, particularly MHI's Basic Environmental Policy.



Sector	Requirements	Requirement check	Work Undertaken	DNV Findings
	 a. for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale; b. for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios (264) consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments. 3. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports (265), scientific peer-reviewed publications and open source (266) or paying models. 4. The adaptation solutions implemented: a. do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities; b. favour nature-based solutions (267) or rely on blue or green infrastructure (268) to the extent possible; c. are consistent with local, sectoral, regional or national adaptation plans and strategies; d. are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met; e. where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity. 			



Sector	Requirements	Requirement check	Work Undertaken	DNV Findings





Reference List

/01/	MHI green/transition Finance Framework (draft)
/02/	MHI Group Integrated Report FY2021 (FY2020)
/03/	MHI 2021 Business Plan
/04/	MHI Carbon Neutral Declaration Additional Explanation (December 13, 2021)
/05/	MHI Group ESG DATABOOK Fiscal Year Ending March 31, 2021 (FY2020)
/06/	MHI Project List
/07/	MHI List of CO ₂ reduction effect trial calculation results
/08/	MHI Document Retention Period Standard Table
/09/	MHI Process for Project Evaluation and Selection
/10/	MHI Green Bond Fund Management Chart
/11/	MHI Accounting Management System Form AB040-010/ Securities and investments
/12/	International Energy Agency World Energy Outlook (2020)
/13/	Agency for Natural Resources and Energy, Electricity Infrastructure Development Division Transition Roadmap for the Power Sector
/14/	Ministry of Economy, Trade and Industry Technology roadmap for the gas sector regarding "Transition Finance"
/15/	Ministry of Economy, Trade and Industry Technology Roadmap for the Iron and Steel Sector regarding "Transition Finance"
/16/	Ministry of Economy, Trade and Industry Technology Roadmap for the Chemical Sector regarding "Transition Finance"
/17/	Ministry of Land, Infrastructure, Transport and Tourism Roadmap toward Zero Emissions in International Shipping
/18/	MHI Website