



Mitsubishi Heavy Industries, Ltd. Green/Transition Finance Framework (August 2024)



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#### "Takasago Hydrogen Park"

Aiming for early commercialization of hydrogen gas turbines, Takasago Hydrogen Park, located at MHI's Takasago Machinery Works in Hyogo Prefecture, which is the world's first integrated validation facility for technologies from hydrogen production to power generation has entered full-scale operation since the fall of 2023, beginning electrolysis hydrogen production. MHI has also started operation of a test module of the SOEC (Solid Oxide Electrolysis Cell), the next-generation high-efficiency hydrogen production technology since the spring of 2024. MHI plans to proceed with demonstrations aimed at the commercialization of hydrogen production equipment with different characteristics, such as AEM\*1 and methane pyrolysis and to improve product reliability through the validation of hydrogen co-firing and 100% hydrogen firing of gas turbines.

\*1 AEM: Anion Exchange Membrane

#### "CO2 capture Systems"

The world's largest CO<sub>2</sub> Capture Plant (U.S.)

Interest in CCUS\*2 has been increasing in recent years with the aim of realizing a carbon neutral world. MHI Group has a proven track record in delivering many commercial plants to projects worldwide, and we are the global market share leader in CO<sub>2</sub> capture facilities on a capacity basis. MHI Group will contribute to a sustainable society through the realization of CCUS value chain involving CO<sub>2</sub> capture solutions, and the provision of various products, services, and decarbonization technologies.

\*2 CCUS: Carbon dioxide Capture, Utilization and Storage

#### 1. Introduction

#### 1.1 Overview of the Framework

Realizing a Carbon Neutral society is a global issue and Mitsubishi Heavy Industries, Ltd. (hereinafter, "The Company" or "MHI") believes 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. Thus, MHI is promoting its related initiatives.

The steady execution of its transition strategy set forth in "2040 Carbon Neutrality Declaration" and "Roadmap to Achieve Carbon Neutrality" aligns with the 2050 Carbon Neutral declaration of the Japanese government. MHI has developed the following Green/Transition Finance Framework (hereinafter, "this framework") in March 2022 and issued its first transition bond in September 2022. MHI has now revised this framework to respond to the latest principles and guidelines, to reflect the 2024 Medium-Term Business Plan Targets, and to add green/transition projects funded with proceeds. MHI's long-term strategy will be reviewed when government policies or other assumptions change.

# 1.2 Reference to Principles and Guidelines

This framework will communicate in a transparent manner on the key elements and core components recommended by the following principles and guidelines.

- · Climate Transition Finance Handbook (The International Capital Market Association (ICMA), 2023)
- · Basic Guidelines on Climate Transition Finance (Financial Services Agency, Japan; Ministry of Economy, Trade and Industry, Japan; and Ministry of the Environment Japan, 2021)
- · Green Bond Principles (ICMA, 2021)
- · Green Bond and Sustainability-Linked Bond Guidelines (Ministry of the Environment Japan, 2022)
- · Green Loan Principles (LMA; APLMA; LSTA, 2023)
- · Green Loan and Sustainability-Linked Loan Guidelines (Ministry of the Environment Japan, 2022)

# <Corresponding Sections to the Four Disclosure Elements of the ICMA Climate Transition Finance Handbook>

The Four Disclosure Elements	Sections
Issuer's climate transition strategy and governance	2.1, 2.3, 2.4, 2.5, 3, 3.1
Business model environmental materiality	2.2, 2.4, 3, 3.1
Climate transition strategy and targets to be science-based	2.2, 2.3, 2.4, 3, 3.1
4. Implementation transparency	2.4, 2.5, 3.2

<Alignment with the Four Core Components of Green Bond Principles> Described in Chapter 3: "Green/Transition Finance Framework"

MHI has obtained a second party opinion from DNV, an independent external reviewer, that this framework is aligned with the above Principles and Guidelines.

#### 1.3 Overview of the Issuer

7th July in 1884, Yataro Iwasaki – the founder of Mitsubishi, took a lease out on government- owned Nagasaki Shipyard. He named it Nagasaki Shipyard & Machinery Works, and started the shipbuilding business on a full scale.

This shipbuilding business was later turned into Mitsubishi Shipbuilding Co., Ltd., and then launched as Mitsubishi Heavy-Industries, Ltd. in 1934, manufacturing ships, heavy machinery, airplanes, and railroad cars

A law aimed at dissolving "zaibatsu" and eliminating the over concentration of economic power was in effect. Thus, in 1950, MHI was divided into three entities: West Japan Heavy-Industries, Ltd., Central Japan Heavy-Industries, Ltd. and East Japan Heavy-Industries, Ltd. It was later consolidated in 1964 and reborn as Mitsubishi Heavy Industries, Ltd.

MHI Group has established business domains and segments to manage its businesses. Each business domain and segment drafts comprehensive strategies for the products and services handled in Japan and overseas, and conducts business activities accordingly.

Therefore, MHI has grouped these business domains and segments based on the similarity of their respective customers and product characteristics into four reporting segments: Energy Systems; Plants & Infrastructure Systems; Logistics, Thermal & Drive Systems; and Aircraft, Defense & Space.

Business Segments	Main Businesses
Energy Systems	Design, manufacture, sales, service, and installation of thermal power systems (GTCC (Gas Turbine Combined Cycle), steam power), nuclear power systems (light water reactors/nuclear fuel cycle & advanced solutions), wind power systems, aero engines, compressors, AQCS (Air Quality Control System), marine machinery.
Plants & Infrastructure Systems	Design, manufacture, sales, service, and installation of metals machinery, commercial ships, engineering, environmental systems, machinery systems
Logistics, Thermal & Drive Systems	Design, manufacture, sales, service, and installation of material handling systems, HVAC systems, engines, turbochargers, automotive air conditioners
Aircraft, Defense & Space	Design, manufacture, sales, service, and installation of commercial aviation, defense aircraft, missile systems, naval ships, maritime systems (torpedoes), special vehicles (tanks), space systems

#### **Our Principles**

Since its foundation, MHI Group has consistently strived together with society, including our customers, partners, and other stakeholders to take on the challenges of creating new monozukuri—the traditional Japanese concept of craftsmanship—ahead of times, thereby contributing to the development of society by providing products and services that support people's lives. Leveraging the ample accomplishments, expertise, and human resources accumulated through the monozukuri, we will continue to take on the challenges of building a better future for the world, engaging in issues such as balancing economic development and reducing environmental impact of economic activity.

- 1. We deliver reliable and innovative solutions that make a lasting difference to customers and communities worldwide.
- 2. We act with integrity and fairness, always respecting others.
- 3. We constantly strive for excellence in our operations and technology, building on a wide global outlook and deep local insights.

### **Group Mission**

To integrate cutting-edge technology into expertise built up over many years to provide solutions to some of the world's most pressing issues and provide better lives.

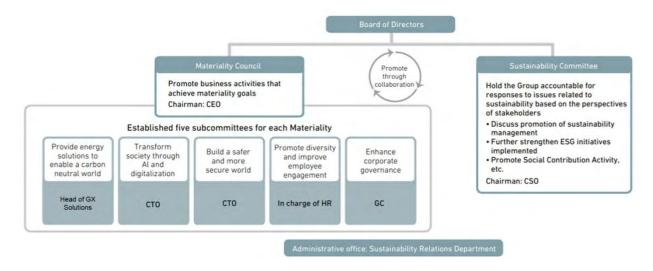
### 2. MHI Group Sustainability

## 2.1 Sustainability Framework

In accordance with the Three Principles that are at the heart of Our Principles, MHI Group 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. MHI Group shall not only make contributions through its products and technologies to resolve social issues such as environmental problems, but shall also work on resolving a wide range of social challenges through various activities in the process of its overall business and conduct sustainability management in tandem with its business activities. Furthermore, we believe that this fundamentally entails realizing a sustainable society and ensuring a future for people and the planet by providing exceptional products and technologies, conducting business activities that take diverse stakeholders' interests into consideration and optimally returning profits to all stakeholders.

### (Sustainability Promotion System)

In order to promote management that takes into account the sustainability of society, we developed and reorganized the former CSR Committee into the Sustainability Committee and established the Materiality Council on October 1, 2021. In consideration of the environmental, social and economic sustainability of companies demanded by the international community, institutional investors and other stakeholders, we will further strengthen our sustainability management system centered on the issues and values faced by modern society. Matters of importance concerning the challenges involved in approaching sustainability are discussed at the Sustainability Committee, with reports then provided to the Board of Directors in relation to the relevant matters. The contents of activities undertaken in relation to Material Issues are also the subject of reports to be provided to the Board of Directors on a periodic basis and serve as important themes for us to consider when it comes sustainability management.



## (Conformity to International Code of Conduct)

Being a global company, MHI Group always conducts its business activities in accordance with international codes of conduct. We have participated in the United Nations Global Compact (UNGC) since 2004 and are committed to making ongoing efforts throughout the Group to respect and carry out UNGC's Ten Principles spanning four basic areas: human rights, labor, environment, and anti- corruption. We promote sustainability activities in accordance with ISO 26000, which was formulated in 2010 as an international guideline on the social responsibilities of organizations. We strive to disclose information on our activities in accordance with international reporting standards such as the Sustainability Reporting Standards of the Global Reporting Initiative (GRI).

We have also endorsed the Task Force on Climate-Related Financial Disclosures' (TCFD) recommendations and discloses climate-related information in accordance with the TCFD recommendations.

### 2.2 Materiality of MHI Group

To enhance corporate value and grow in the medium to long term through solutions to social issues, in FY 2020, we identified Material Issues that MHI Group should be addressing. Progress of each Material Issue is managed with progress monitoring indicators (KPIs), and the PDCA cycle is steadily applied. Activities involving engagement with Material Issues embody sustainability management in terms of business. In order to make the activities effective, we have established subcommittees with managers and departments for each Material Issue, and the person responsible and organizing department consider specific measures and roadmaps. In October 2021, we established the Materiality Council, to follow up on business activities aimed at realizing company-wide goals for Material Issues and to instruct business divisions addressing the goals to take necessary measures. Council meetings taking place during FY2023 were held on two occasions, with one held in June and one held in December, during which information on the progress being made with respect to each Material Issue was shared and questions and opinions were freely exchanged. In the areas of carbon neutrality and digital platform services, research and development projects are underway that will lead to specific businesses, and the results of our activities are bearing fruit. These activities are important themes in sustainability management and are regularly reported to the Board of Directors.

## [Processes of Identifying Material Issues]

When going about identifying Material Issues, we first took an inventory of MHI Group businesses and linked them to a list of social issues prioritized in line with international frameworks — including the SDGs, the GRI Standards, ISO 26000, the Sustainability Accounting Standards Board (SASB) Standards, the EU taxonomy and others.

Activities involving efforts aimed at Material Issues are promoted in coordination with business units and related departments, which primarily means the individuals responsible and coordinating departments relevant to the Material Issue in question, with progress monitored by the Materiality Council and PDCA cycles being implemented accordingly.

Step 1
Prioritizing Social Issues

Step 2
Creating a Materiality Matrix

Step 3
Verifying Appropriateness

Step 4
Identifying Material Issues

Step 5
Setting Company-Wide Goals and Progress Monitoring Indicators (KPIs)

We inventoried the Company's businesses and initiatives, linked them to a list of social issues prioritized in line with international frameworks — including the SDGs, the GRI Standards, ISO 26000, the SASB Standards, the EU taxonomy and others, and identified 37 social issue themes related to MHI Group.

- (1) Importance of social issues assessed and mapped along two axes (Vertical axis: degree of impact on society; horizontal axis: degree of impact on the Company; see "Approach to Identifying Material Issues" below)
- (2) Nine Material Issues postulated based on the Material Issues Matrix

Verifying Appropriateness

- Discussion held at Materiality review meetings (consisting of CSR Committee members), and Material Issues narrowed down to six items
- (2) Dialogue held with outside experts in accordance with the necessity

The CSR Committee identified Material Issues.

A report was provided to the Board of Directors after deliberations at the Executive Committee

Setting Company-Wide Goals and Progress Monitoring Indicators (KPIs)

- A task force team comprising of young and mid-level employees played a central role in establishing a draft of company-wide goals and KPIs for monitoring progress when it comes to Material Issues.
- (2) These were further considered at Materiality subcommittees, decided upon by the Materiality Council, and then disclosed.

[Materiality, Problem Recognition, and Company-wide Goals]

Materiality	Company-wide goals
Provide energy solutions to enable a carbon neutral world [Officer in Charge: Head of GX Solutions]	<ul> <li>Reduce the CO<sub>2</sub> emissions of MHI Group.         Achieve Net Zero CO<sub>2</sub> emissions from its operations by 2040 (Scopes 1 and 2)     </li> <li>Contribution to society throughout the value chain by 2040.         Achieve Net Zero CO<sub>2</sub> emissions from its entire value chain by 2040 (Scope 3 + reduction through CCUS)     </li> </ul>
Transform society     through AI and     digitalization     [Officer in Charge:     CTO]	<ul> <li>Expand lineup of useful and sustainable Al/digital products meeting needs of customers and users</li> <li>Contribute to a sustainable society through future-oriented energy management strategies that use Al and digitalization to appropriately and efficiently manage power supply and demand</li> <li>Improve our working environment to produce creative products</li> </ul>
Build a safer and more secure world [Officer in Charge: CTO]	<ul> <li>Boost the resilience of products, businesses, and infrastructure</li> <li>Implement fully-automated and labor-saving measures</li> <li>Continuously strengthen cybersecurity measures for all MHI products</li> </ul>
Promote diversity and improve employee engagement [Officer in Charge: In charge of HR]	<ul> <li>Project new value through participation of diverse human resources</li> <li>Ensure safe and comfortable workplaces</li> <li>Improve our environment that maximizes employee performance, and develop human resources who are healthy, energetic and able to contribute to society</li> </ul>
5. Enhance corporate governance [Officer in Charge: GC]	<ul> <li>Further enhance deliberations by the Board of Directors</li> <li>Promote legal compliance and honest and fair business practices</li> <li>Further promote responsible (CSR) procurement in the global supply chain</li> <li>Create opportunities to explain non-financial information</li> </ul>

### 2.3 Environmental Targets

The MHI Group Long-Term Environmental Target, was established at a meeting of the Environment Committee held in March 2021. The Long-Term Environmental Target aims at decarbonizing the business activities of the MHI Group by 2040. The Sixth MHI Group Environmental Targets (FY2024-FY2026) is currently under development. MHI Group will continue to contribute to solve environmental problems that are important social issues and work as one to achieve these goals.

# [The MHI Group Long-Term Environmental Target]

ltem	Scope of target	Target (FY2021-FY2040)
Reduction in CO <sub>2</sub> emissions	Entire MHI Group	<ul> <li>Decarbonize MHI Group's business activities by 2040</li> <li>Reduce total direct (Scope 1) and indirect (Scope 2)</li> <li>CO<sub>2</sub> emissions from business activities by 50% in FY2030 relative to FY2014</li> </ul>

(Note) Consolidated Group Companies will be subject to this target

### [The Fifth MHI Group Environmental Targets]

Item	Scope of target	Target (FY2021-FY2023)
1. Reduction in CO <sub>2</sub> emissions	Entire MHI Group	<ul> <li>Reduction in CO<sub>2</sub> emissions per unit from offices and plants by 9% in FY2023 relative to FY2014.</li> </ul>
Reduction in water usage	Entire MHI Group	Reduction in water usage per unit in FY2023 by 7% relative to FY2014.  (Water: industrial water, tap water, groundwater, rivers, lakes; excludes seawater).
Reduction in waste generation	Entire MHI Group	Reduction in waste generation per unit in FY2023 by 7% relative to FY2014     (Excluding valuable materials; including hazardous waste.)

(Note) Consolidated Group Companies will be subject to this target

#### 2.4 2040 Carbon Neutral Declaration: MISSION NET ZERO

The first goal of MISSION NET ZERO, our 2040 Carbon Neutrality Declaration, is to reduce MHI Group  $CO_2$  emissions (Scopes 1 and 2) to 50% of 2014 levels by 2030, and to reach Net Zero emissions by 2040. Our second goal involves carbon emissions from the value chain in which we operate (Scope 3), the majority of which arise from the customers' use of our products. Here, we aim to reduce  $CO_2$  emissions throughout our entire value chain to 50% of 2019 levels by 2030, after deducting reductions from CCUS.\* We will then reduce  $CO_2$  to Net Zero by 2040. This means that we are aiming for Net Zero carbon emissions a full decade earlier than Japan and other major nations' 2050 Net Zero targets. This goal shows our determination to set an example by realizing Carbon Neutrality before the rest of the world. It was formulated as such in order to provide enough time for MHI Group products and technologies to be implemented around the globe.

Thanks to the success of decarbonization efforts such as energy conservation, we are already close to completing our interim target to reduce Scopes 1 and 2 carbon emissions by 50% in 2030, having cut CO<sub>2</sub> emissions by 45% (compared to 2014) in 2022. Nevertheless, for further reduction, we have positioned Mihara Machinery Works as a model plant for decarbonization, and are working to acquire practical decarbonization know-how and deploy it throughout our company.

For Scope 3 emissions, a variety of development efforts are underway in order to meet the interim target of 30% reduction in 2025, aiming for 50% reduction in 2030. We reduced emissions by 10% (compared to 2019) in 2022, showing steady progress toward achieving our goal.

\*CO<sub>2</sub> Capture, Utilization, and Storage

## 2.4.1 CO<sub>2</sub> Emission Reduction Targets

Target	Reduce CO <sub>2</sub> emissions across MHI	Reduce CO <sub>2</sub> emissions across MHI's
Year	Group	value chain
	Scopes 1&2	Scope3 +reductions from CCUS
2030	▲ 50% (compared to 2014)	▲ 50% (compared to 2019)
2040	Net Zero	Net Zero

Scopes 1&2: The calculation standard is based on the GHG Protocol.

Scope 3: The calculation standard is based on the GHG Protocol. However, we also account for reductions achieved by CCUS as an MHI original index.



(Note) The Company's Scope 3 emissions are around 99% accounted for by CO<sub>2</sub> emissions from product use (Category 11), and our main activities are aimed at reducing these emissions.

	Unit	FY 2020	FY 2021	FY 2022
Scope 1*1		102	118	112
Scope 2*2	kt-CO <sub>2</sub>	247	225	214
Scope 3*3	KI-CO2	720,474	1,578,348	1,236,526
(Category 11 product use)		(715,000)	(1,573,000)	(1,231,000)

<sup>\*1</sup> Figures obtained third-party assurance. Coverage: MHI and domestic Group companies (15 companies in FY2020, 12 companies in FY2021, and 11 companies in FY2022). The figure of FY2022 is under review to obtain assurance from an independent third party.

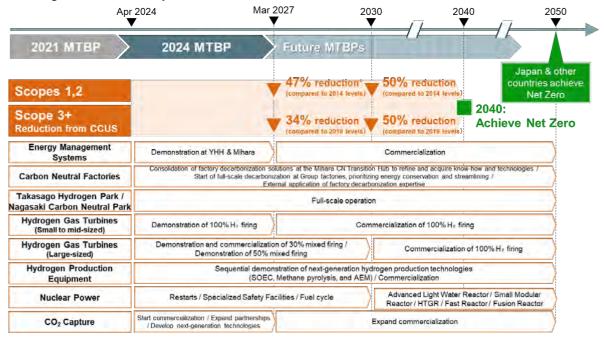
(Note) Detailed data is disclosed in " SUSTAINABILITY DATABOOK "and" ESG DATA BOOK " https://www.mhi.com/sustainability/library

<sup>\*2</sup> Figures obtained third-party assurance and calculated based on market standards. Coverage: MHI and domestic Group companies (15 companies in FY2020, 12 companies in FY2021, and 11 companies in FY2022). The figure of FY2022 is under review to obtain assurance from an independent third party.

<sup>\*3</sup> Figures may fluctuate due to revision of the scope and method of calculation.

#### 2.4.2 Roadmap to Achieve Carbon Neutrality

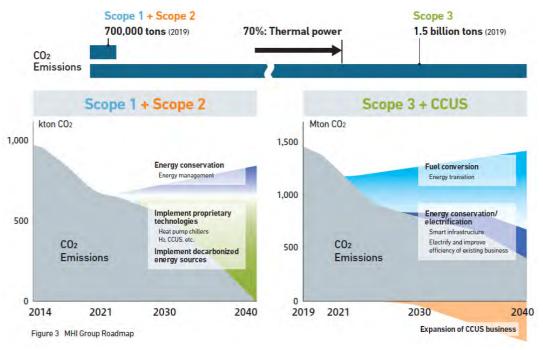
The year 2030 is the midpoint of our carbon neutral goal for 2040, and we are developing various solutions to achieve the 2030 goal. We will expand our carbon neutral-related R&D and investments, allocating a total of 2 trillion yen from FY2021 to 2030.



<sup>\*</sup> Although CO<sub>2</sub> emissions in FY2027 are expected to be reduced by only 35% (compared to 2014 levels) due to business expansion during the 2024 MTBP, MHI Group aims to achieve a 47% reduction (compared to 2014 levels) through energy conservation, streamlining, electrification, and fuel conversion.

For details on the roadmap toward carbon neutrality for each business, please refer to pages 7-8 of "Mitsubishi Heavy Industries Group Carbon Neutrality Handbook" (Updated March 2024) https://www.mhi.com/company/overview/carbon-neutral/pdf/cn\_handbook\_2022.pdf

For Scopes 1 and 2, MHI aims to achieve zero  $CO_2$  emissions by 2040 through energy conservation, installation of in-house technologies, and introduction of decarbonized electricity. For Scope 3, MHI will reduce  $CO_2$  emissions through fuel conversion, energy conservation, and electrification, but since it is difficult to achieve zero emissions right away, MHI will aim to achieve zero emissions by 2040 by combining these methods with  $CO_2$  Capture Utilization and Storage (CCUS).



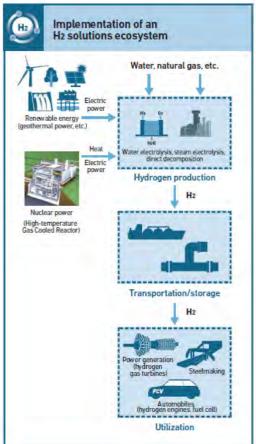
## [MHI Group's Value Chain for Realizing Carbon Neutrality]

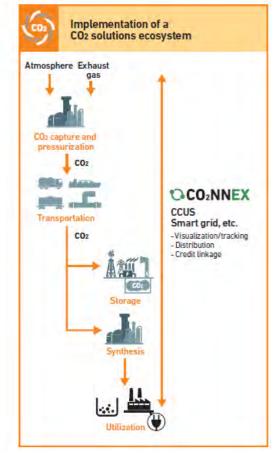
First, MHI needs to develop products that can use decarbonizing (including carbon neutral) energy while decarbonize existing infrastructure. MHI will continue to promote decarbonization that builds on the central pillar of energy solutions such as carbon-free power generation, biomass power generation, and gasification technology. In addition, with the goal of maximizing the use of nuclear power as a stable large-scale carbon-free power source, MHI will promote the use of existing nuclear power plants that are currently offline, as well as the commercialization of advanced light water reactors (SRZ-1200) by the mid-2030s, in addition to developing small reactors, high-temperature gas reactors, fast reactors, and micro reactors to meet the diverse needs of the future.

Second, MHI needs to decarbonize energy upstream in the value chain. MHI is proceeding with the construction of a hydrogen solutions ecosystem by switching from conventional fossil fuels to supply chains based on hydrogen and ammonia.

Third, for industrial sectors that are difficult to decarbonize, MHI will build a CO<sub>2</sub> ecosystem with products, technologies, and services related to CCUS, from capture, transportation, and storage of emitted CO<sub>2</sub> to utilization.



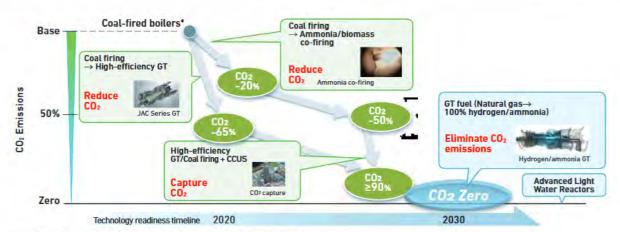




#### [Roadmap to Decarbonizing Existing Infrastructure]

The Energy Transition faces different circumstances and issues in each country and region. The demand is high for sound economics in combination with positive environmental impact, making it important to keep costs within a range that society as a whole can bear. At MHI Group, in order to realize a carbon neutral society while maintaining people's current standard of living, we believe that the phased decarbonization of power generation systems is necessary. To that end, we are proposing solutions that help to reduce CO<sub>2</sub> emissions.

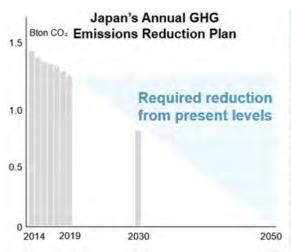
Reducing, capturing, and eliminating  $CO_2$  is one path to decarbonizing thermal power. Another path is to reduce  $CO_2$  emissions through maximum utilization of nuclear power, a carbon-free energy source.



<sup>\*</sup>Based on CO2 emissions from subcritical pressure coal-fired boilers

#### 2.4.3 Contributions to Customers' Scopes 1&2 Reductions

Offer a variety of solutions to reduce CO<sub>2</sub> emissions from our customers' existing facilities



Example of CO <sub>2</sub> Reduction Solutions for Existing Facilities	Reduction Rate
Replace coal-fired thermal power plant with natural gas GTCC	-60% to -65%
30% mixed hydrogen firing in GTCC/engine	-10%
100% hydrogen firing in GTCC/engine	-100%
20% biomass/ammonia mixed firing in coal-fired thermal power plant	-20%
100% biomass/ammonia firing in coal-fired thermal power plant	-100%
Restart and extend operating life of nuclear power plants (replacement of fossil fuel power generation)	-100%
Hydrogen reduction steelmaking + electric arc furnace	-65%
Replace engine forklift with electric forklift	-65%
Replace boiler with heat pump	-65%

#### Scopes 1 & 2

- · Scope 1 represents CO<sub>2</sub> emissions arising directly from MHI Group's operations (fuel combustion and industrial processes). Scope 2 represents indirect CO<sub>2</sub> emissions, mainly from electricity consumption.
- · Calculations are based on the GHG Protocol. However, emissions from our combined cycle demonstration plant (Takasago Machinery Works) and Nakoso and Hirono IGCC plants are included in Scope 3.
- Main assumptions include reduction in electricity emissions in accordance with Japan's CO<sub>2</sub> emissions reduction targets and some degree of hydrogen and CO<sub>2</sub> solutions ecosystems development.

#### Scope3+reductions from CCUS

- Scope 3 represents indirect CO<sub>2</sub> emissions arising from other companies across our value chain excluding that covered by Scopes 1 & 2. This Scope includes 15 categories, approximately 99% of which comprise CO<sub>2</sub> emissions arising from the use of MHI Group products, which are targets for reduction efforts.
- · Calculations are based on the GHG Protocol. However, we also account for reductions achieved by CCUS as an MHI original index.
- · Based on the GHG Protocol, total CO<sub>2</sub> emissions expected over a product's lifetime are recorded during the year in which it was sold.
- $\cdot$  Main assumptions include the active adoption of carbon-free products by each company in accordance with each country's CO<sub>2</sub> reduction goals as well as some degree of hydrogen and CO<sub>2</sub> solutions ecosystems development.

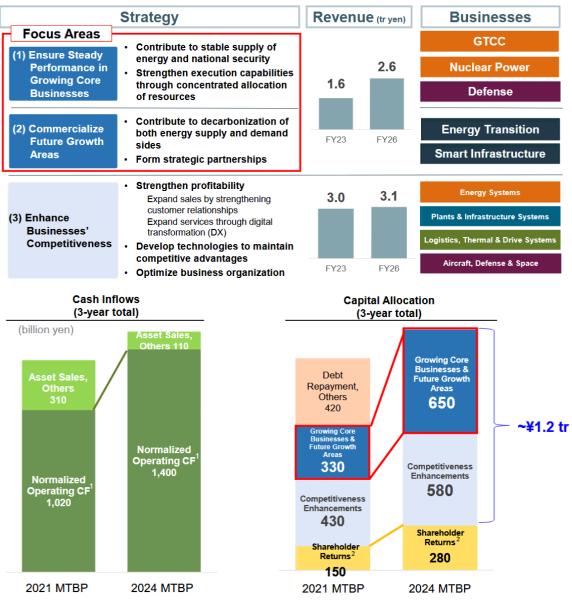
### 2.5 2024 Medium-Term Business Plan Targets (FY2024-2026)

In May 2024, we formulated our 2024 Medium-Term Business Plan based on the results of the 2021 Medium-Term Business Plan, which spanned from FY2021 through FY2023.

In our new 2024 Medium-Term Business Plan, which spans from FY2024 through FY2026, we strengthen portfolio management leveraging business and financial foundations established during the 2021 Medium-Term Business Plan, strengthen the technologies and human capital that support these efforts, and promote MISSION NET ZERO.

### (Commercialize Future Growth Areas)

MHI has defined two growth areas as focuses of our 2021 Medium-Term Business Plan: The Energy Transition, which aims to decarbonize energy supply, and Smart Infrastructure, which aims to realize the decarbonization, energy conservation, and automation of energy demand. Through the development of future growth areas, we identified commercial opportunities in hydrogen, ammonia, CCUS, electrification, and data centers. In our 2024 Medium-Term Business Plan, we will invest a cumulative 650 billion yen over the next three years in Future Growth Areas and Growing Core Businesses (GTCC, Nuclear Power, and Defense) as priority areas, aiming to expand sales to the 1 trillion yen level.



#### 3. 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 established by the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, and has established the following 3.1 through 3.5 in order to procure the necessary funds as Green/Transition Finance in a manner that conforms to internationally established frameworks.

## [Conforming the sector-specific roadmaps]

- Electricity Infrastructure Division, Agency for Natural Resources and Energy, Transition Roadmap for Power Sector (February 2022)
- Ministry of Economy, Trade and Industry, Technology Roadmap for "Transition Finance" in Gas Sector (February 2022)
- Ministry of Economy, Trade and Industry, Technology Roadmap for "Transition Finance" in Iron and Steel Sector (October 2021)
- Ministry of Economy, Trade and Industry, Technology Roadmap for "Transition Finance" in Chemical Sector (December 2021)
- Ministry of Land, Infrastructure, Transport and Tourism, Roadmap to Aero Emission from International Shipping (December 2020)
- Ministry of Land, Infrastructure, Transport and Tourism, Aviation Sector/Procedure Chart for the Promotion of Decarbonization of Aviation (May 2024)

#### 3.1 Use of Proceeds

MHI will use the proceeds of the Green/Transition Finance as new investment and refinancing for existing investment (such as R&D funds, business development and operation funds, and working capital) for eligible businesses and/or projects falling within the following eligibility criteria, which has been confirmed consistent with sectoral roadmaps for electricity, gas, iron & steel, chemicals (Ministry of Economy, Trade and Industry) ,shipping and aviation (Ministry of Land, Infrastructure, Transport and Tourism). In the case of financing existing investments, allocation is limited to expenditures made within three years from the execution of the related Green/Transition Finance.

Depending on the characteristic of the Finance being executed, proceeds will be allocated to the following projects categories

Green Finance : Green Projects

• Transition Finance : Green Projects and/or Transition Projects

<u>Green Projects</u> [Green Bond Principles]

Environmental objectives: Climate change mitigation
Project Category: Renewable energy / Circular economy adapted products, production technologies and processes

processes		
Eligible businesses and/or projects	Eligibility Criteria	SDGs
Renewable Energy	<ul><li>Wind power (wind power plants)</li><li>Geothermal power (geothermal power plants)</li><li>Solar power</li></ul>	7.Ensure access to affordable, reliable, sustainable and modern energy for all 9. Build resilient infrastructure,
Clean Energy	<ul> <li>Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen firing)</li> <li>Ammonia gas turbine (ammonia power generation businesses and/or projects for 100% ammonia firing)</li> <li>Steam Power (conversion to 100% ammonia firing)</li> <li>Gas engine for power generation (100% hydrogen firing)</li> <li>Hydrogen production (green)</li> <li>Ammonia production (green)</li> <li>Biogas production</li> </ul>	promote inclusive and sustainable industrialization and foster innovation 12. Ensure sustainable consumption and production patterns 13. Take urgent action to combat climate change and its impacts

#### **Transition Projects**

[Green Bond Principles]

Environmental objectives: Climate change mitigation

Project Category: Circular economy adapted products, production technologies and processes

Eligible businesses and/or projects	Eligibility Criteria	SDGs
Decarbonize existing infrastructure	<ul> <li>LNG-fueled high-efficiency gas turbine</li> <li>Steam Power (conversion to ammonia co-firing)</li> <li>Nuclear Energy Systems</li> <li>Gas engine for power generation (hydrogen co-firing)</li> <li>Metals machinery (hydrogen-reduced ironmaking etc.)</li> <li>Material Handling (high efficiency and fuel cell powered)</li> <li>Hydrogen gas turbine (co-firing)</li> <li>Ammonia gas turbine (co-firing)</li> <li>Synthetic fuel such as Sustainable Aviation Fuel (SAF)</li> </ul>	7.Ensure access to affordable, reliable, sustainable and modern energy for all 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation 12.Ensure sustainable consumption and production patterns 13.Take urgent action to combat climate change and its impacts
Build a hydrogen solutions ecosystem	<ul> <li>Hydrogen compressors (for hydrogen production, transport and storage, etc.)</li> <li>Hydrogen production (blue or turquoise, etc.)</li> <li>Ammonia production (blue or turquoise, etc.)</li> </ul>	
Build a CO <sub>2</sub> solutions ecosystem	<ul> <li>CO<sub>2</sub> capture and storage</li> <li>CO<sub>2</sub> transport (liquefied CO<sub>2</sub> carriers, etc.)</li> </ul>	

## 3.2 Process for Project Evaluation and Selection

# **3.2.1 Process for Project Selection**

MHI's business divisions select the businesses and/or projects to be funded by Green/ Transition Finance proceeds, and the finance department then confirms the compliance with the eligibility criteria, and the CFO will make the final decision.

# 3.2.2 Process to Mitigate Environmental and Social Risks

In executing projects, MHI is committed to the mitigation of environmental and social risks according to the eligibility criteria and contributing to the creation of a sustainable society in accordance with the Group's Sustainability framework (described in 2.1).

## 3.3 Management of Proceeds

MHI's finance department manages the allocation of the Green/ Transition Finance proceeds on a regular basis (at least once a year), until the maturity of the Green/ Transition Finance, using an internal management system. After the execution of a Green/ Transition Finance, the proceeds will be allocated to eligible businesses and/or projects until the maturity of the Green/ Transition Finance. Pending the allocation to eligible businesses and/or projects, the amount of unallocated proceeds will be held in cash or cash equivalents.

#### 3.4 Reporting

MHI will annually report on the allocation of proceeds to eligible businesses and/or projects, management of proceeds, and impact on its corporate website, or in a timely manner whenever any significant change occurs. The first report will be made public in the fiscal year following the Green/Transition Finance execution.

### 3.4.1 Allocation Reporting

Until the proceeds are fully allocated, MHI will provide information on the allocation of proceeds to each eligibility criteria, on an annual basis.

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

MHI will report timely in the event of a significant change in the allocation of proceeds.

## 3.4.2 Impact Reporting

At least until all the proceeds from the Green/Transition Finance have been allocated, MHI will report one or more of the following indices relevant to each eligibility criteria to the extent practicable.

## **Green Projects**

Eligible businesses and/or projects	Eligibility Criteria	Reporting Contents
Renewable Energy	<ul><li>Wind power (Wind power plant)</li><li>Geothermal power (Geothermal power plant)</li><li>Solar power</li></ul>	<ul> <li>Information on their progress in R&amp;D (such as the outline of projects participated in)</li> <li>Annual power generation of renewable energy (MWh)</li> <li>Annual CO<sub>2</sub> reduction (tons)(*)</li> </ul>
Clean Energy	<ul> <li>Hydrogen gas turbine (hydrogen power generation businesses and/or projects for 100% hydrogen firing)</li> <li>Ammonia gas turbine (ammonia power generation businesses and/or projects for 100% ammonia firing)</li> <li>Steam Power (conversion to 100% ammonia firing)</li> <li>Gas engine for power generation (100% hydrogen firing)</li> <li>Hydrogen production (green)</li> <li>Ammonia production</li> <li>Biogas production</li> </ul>	<ul> <li>Information on their progress in R&amp;D (such as the outline of projects participated in)</li> <li>Annual CO₂ reduction (tons) by products sold (including implementation within MHI) (*)</li> <li>Amount of hydrogen produced(ton)</li> <li>Amount of ammonia produced(ton)</li> <li>Amount of biogas produced(ton)</li> </ul>

<sup>(\*)</sup> Calculated by using average emission factors and operating rates published by third-party organizations

**Transition Projects** 

Transition Projects		
Eligible businesses and/or projects	Eligibility Criteria	Reporting Contents
Decarbonize existing infrastructure	<ul> <li>LNG-fueled high-efficiency gas turbine</li> <li>Steam Power (conversion to ammonia co-firing)</li> <li>Nuclear Energy Systems</li> <li>Gas engine for power generation (hydrogen co- firing)</li> <li>Metals machinery (hydrogenreduced ironmaking, etc.)</li> <li>Material Handling (high efficiency and fuel cell powered)</li> <li>Hydrogen gas turbine (co- firing)</li> <li>Ammonia gas turbine (co- firing)</li> <li>Synthetic fuel such as Sustainable Aviation Fuel (SAF)</li> </ul>	<ul> <li>Information on their progress in R&amp;D (such as the outline of projects participated in)</li> <li>Annual CO<sub>2</sub> reduction (tons) by products sold (including implementation within MHI) (*)</li> <li>Hydrogen co-firing ratio (%)</li> <li>Ammonia co-firing ratio (%)</li> <li>Amount of Synthetic fuel such as Sustainable Aviation Fuel (SAF) produced(kL)</li> </ul>
Build a hydrogen solutions ecosystem	<ul> <li>Hydrogen compressors (for hydrogen production, transport and storage, etc.)</li> <li>Hydrogen production (blue or turquoise, etc.)</li> <li>Ammonia production (blue or turquoise, etc.)</li> </ul>	<ul> <li>Information on their progress in R&amp;D (such as the outline of projects participated in)</li> <li>Annual CO<sub>2</sub> reduction (tons) by products sold (including implementation within MHI) (*)</li> <li>Amount of hydrogen produced (ton)</li> <li>Amount of ammonia produced (ton)</li> </ul>
Build a CO <sub>2</sub> solutions ecosystem	· CO <sub>2</sub> capture and storage     · CO <sub>2</sub> transport (liquefied CO <sub>2</sub> carriers, etc.)	<ul> <li>Information on their progress in R&amp;D (such as the outline of projects participated in)</li> <li>Annual CO₂ reduction (tons) by products sold (including implementation within MHI) (*)</li> </ul>

<sup>(\*)</sup> Calculated by using average emission factors and operating rates published by third-party organizations

## 3.5 External Review

#### 3.5.1 Pre-issuance External Review

MHI has obtained a second party opinion from DNV, an independent external reviewer. The opinion confirmed that this framework is aligned with the following principles and guidelines.

- · Climate Transition Finance Handbook (ICMA, 2023)
- Basic Guidelines on Climate Transition Finance (Financial Services Agency, Japan; Ministry of Economy, Trade and Industry, Japan; and Ministry of the Environment Japan, 2021)
- Green Bond Principles (ICMA, 2021)
- · Green Bond and Sustainability-Linked Bond Guidelines (Ministry of the Environment Japan, 2022)
- · Green Loan Principles (LMA; APLMA; LSTA, 2023)
- · Green Loan and Sustainability-Linked Loans Guidelines (Ministry of the Environment Japan, 2022)

## 3.5.2 Post-issuance External Review

In the fiscal year following the date of execution of the Green/ Transition Finance, MHI will obtain a review from DNV, an independent external reviewer, to evaluate whether its reporting is aligned with this framework. This review will be conducted annually until the proceeds from the Green/ Transition Finance have been fully allocated.

# (Revision History)

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March 2022	1st edition	
August 2024 Revised this framework to respond to the latest principles and guidelines, to reflect the 2024 Medium-Term Business Plan Targets, and to add green/transition projects funde with proceeds.		