

2021 Medium-Term Business Plan Progress (FY2021-2023)

October 29, 2021 Seiji Izumisawa, President & CEO

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Opening Message



- 2021 Medium-Term Business Plan is progressing smoothly
- Business environment recovering. Continuing efforts to improve profitability.
- Accelerating growth area initiatives:
 - Working to meet diverse regional needs in the Energy Transition space
 - Making steady progress toward launching New Mobility & Logistics businesses
- MHI Group is proud to declare our commitment to achieve Carbon Neutrality by 2040

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MHI Group has made steady progress on our 2021 Medium-Term Business Plan (MTBP).

COVID-19 has created a difficult business environment, and although the situation is beginning to improve, we will continue to work to strengthen profitability.

Regarding initiatives in growth areas, the trend toward decarbonization is picking up speed as the Energy Transition moves forward. MHI Group already offers a wide range of products and services to meet the needs of each region of the world during this important time.

In the area of New Mobility & Logistics, we are making steady progress toward commercialization through such efforts as pursuing strategic alliances with other companies.

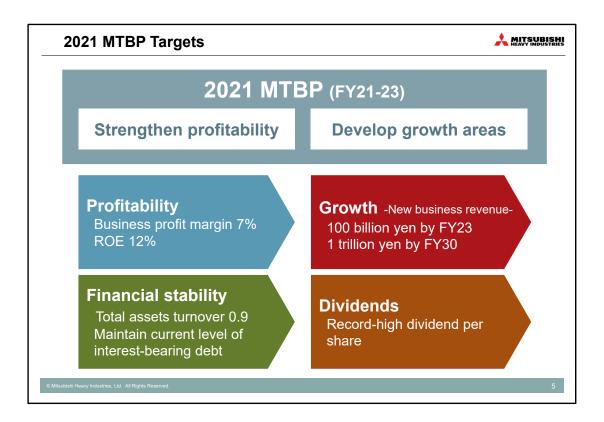
Finally, at the end of today's presentation, I will announce MHI Group's new 2040 Carbon Neutrality Declaration.

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I. 2021 MTBP Overview

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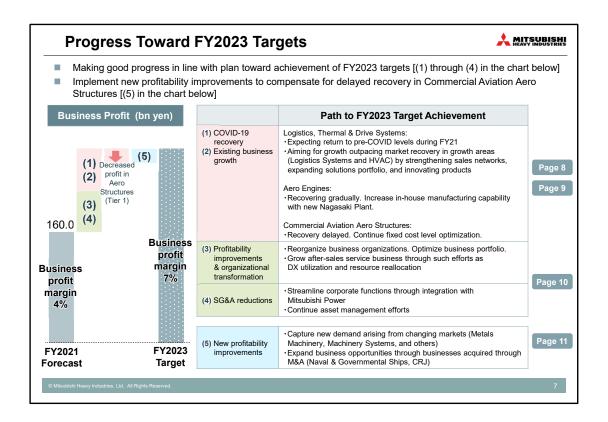


The two main goals of MHI Group's 2021 Medium-Term Business Plan are to strengthen profitability and develop growth areas. We are working to achieve targets in four major areas: profitability, growth, financial stability, and dividends.



II. Strengthening Profitability

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Earlier, Mr. Kozawa explained MHI Group's business profit forecast for FY2021. Here, I will outline our initiatives to raise business profit from ¥160 billion (4% business profit margin) in FY2021 to the FY2023 target of 7% business profit margin.

In Logistics, Thermal & Drive Systems, business profit is forecasted to recover to pre-COVID levels during this fiscal year and to exceed them in FY2023.

In the growing businesses of Logistics Systems and HVAC, we will strengthen our sales networks, expand solutions portfolios, and innovate products to enable growth outpacing market recovery.

In Aero Engines, we expect business profit to recover to pre-COVID levels by FY2023 and aim to improve profitability by strengthening our in-house production capabilities with the new Nagasaki Plant.

We expect recovery from COVID-19 in Commercial Aviation Aero Structures will require more time. As such, we will continue to optimize fixed cost levels in order to achieve profitability.

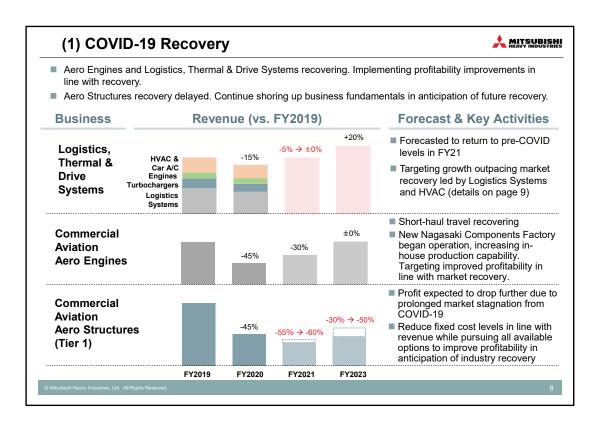
Initiatives to improve profitability, transform organizations, and reduce SG&A are

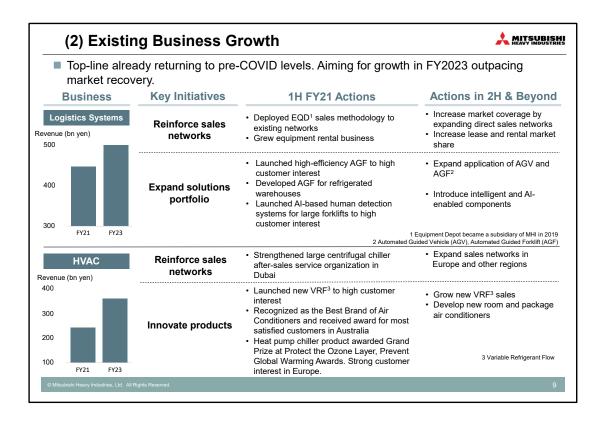
progressing mostly in line with the plan. We have also optimized our business portfolio by reorganizing business organizations in Metals Machinery and divesting the Machine Tools business, among other efforts.

In addition, we are working to expand after-sales services by leveraging DX and shifting resources, mainly in Steam Power. Going forward, we would like to achieve solid results from our after-sales service businesses.

With regard to SG&A, we streamlined corporate functions through integration with Mitsubishi Power in October of this year. We will also continue asset management initiatives.

Please read slides 8 through 10 for more details on these topics.





| ■ Efforts to a | chieve FY2023 targets pro | ogressing in line with plan | |
|----------------------------------|---|--|--|
| Business | 21 MTBP Initiatives | Progress | Actions in 2H & Beyond |
| Steam Power Environmental Plants | Large shift to after-sales service Fixed cost reductions Reorganize business organizations | Transformed into after-sales service-focused organization (Oct 2021) Consolidating boiler manufacturing at Nagasaki Machinery Works (end FY2022) | Specialize in services for decarbonization Optimize manufacturing capacity |
| Metals Machinery | Chaliling profitability by objition | Strengthened project management and consolidated organizations and locations. Divestiture of French operations completed. | l. |
| Engineering | Stabilize profitability by shifting to after-sales service Eliminate loss-making EPC projects | Stabilizing business structure including by participating in Dubai Metro O&M business | Accelerate deployment of decarbonization businesse and shift to after-sales service |
| Commercial Ships | Strengthen shipbuilding engineering | Received multiple orders for LNG Gas Fuel Supply Systems | |
| Machine Tools | | Completed divestment to Nidec Group (Aug 2021) | |
| SG&A | Targeting 20% reduction Pursue business process optimization, organizational consolidation, and restructuring | Streamlined corporate functions through integration with Mitsubishi Power Increased liquidity through asset management initiatives | Leverage DX to achieve further optimization Continue asset management efforts |

| ■ Grow busine | | s to capture new demand in wake of Co ough synergies with businesses acquir | OVID-19 and drive toward decarbonization ed through M&A |
|-------------------------------|---------------------------------------|---|--|
| Business | 1H FY21 Order Intake (vs. 1H FY19) | Business Environment | New Initiatives |
| Metals Machinery | 120% | Rebound in capital investment. Increasing investment in solutions that reduce environmental impact. | Reduce CO₂ emissions and expand sales of high-efficiency production facilities Grow after-sales service with such tools as digitalization and predictive maintenance |
| Machinery Systems | 110% | Volume of logistics increasing due to economic recovery in U.S. Demand for cardboard increasing | Increase sales of high-speed, high-volume box making machine EVOL in U.S. and expand into Japanese and European markets |
| Engines | 110% | Demand recovering in emergency power generators for global manufacturers and data centers especially in China | Expand bidding targets by obtaining TLC certification¹ Expand sales network in China and increase productivity of MHI Group manufacturing facilities |
| Naval & Governmental Ships | - | Mitsubishi Heavy Industries Maritime Systems, Ltd. began operation Demand increasing for minimally-manned and automated technologies including unmanned surface vehicles | Expand product lineup (auxiliary naval ships) Increase productivity by promoting PMI Develop next-generation ships and unmanned marine systems with cross-organizational team |
| CRJ | - | Demand for CRJ maintenance strong due to rapid recovery of domestic air travel in U.S., a major market | Expand West Virginia Service Center Fill out CRJ after-sales service lineup with Regional One partnership in U.S. |

This page explains MHI Group's new profitability improvement efforts to compensate for delayed recovery in Commercial Aviation Aero Structures.

Order intake has been strong in Metals Machinery, Machinery Systems, and Engines due to changes in the market as a result of decarbonization and increased logistics volume. As one example of how we are attempting to further accelerate this trend, we are working to expand sales of Metals Machinery production equipment that reduces CO₂ emissions and to expand after-sales services through digitalization and predictive maintenance.

Additionally, we aim to build on the businesses we have acquired through M&A.

In the Naval & Government Ships business, Mitsubishi Heavy Industries Maritime Systems began operation on October 1 with the goal of expanding our product lineup and improving our production capability.

CRJ is experiencing strong maintenance demand due to the rapid recovery of domestic air travel in the U.S., its main market. With the expansion of our West Virginia Service Center and the partnership with Regional One, we aim to increase business opportunities by offering a varied portfolio of services.



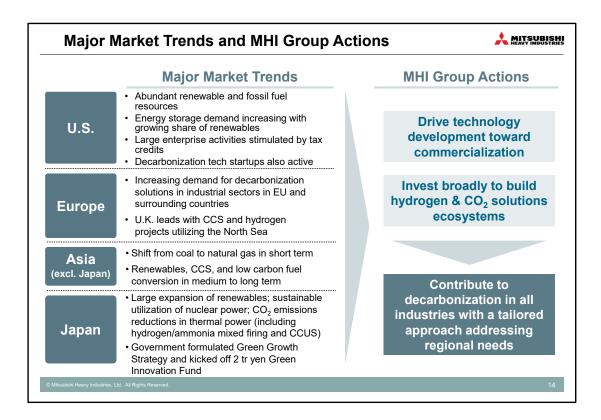
III. Developing Growth Areas

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III-1. Energy Transition

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I would now like to provide an update on the development of growth areas.

First, I will speak about the Energy Transition.

In the U.S., the abundance of both renewable energy and fossil fuel resources makes it a market where a balance between the environment and sustainable economic growth is possible. With the expansion of renewable energy, the need for energy storage is also increasing. Tax credits have also stimulated the activities of both large companies and tech startups.

In Europe, the decarbonization needs of customers, especially industrial customers, are increasing against the backdrop of high environment-related targets.

In Asia, I believe that for the time being, the shift from coal to gas will be the main tool for carbon reduction, but I also believe that in the future, it will be essential to move to carbon-free fuel conversions.

Finally, in Japan, I believe that, following the government's energy policy, renewable energy will significantly increase its share, nuclear power will be used sustainably, and the decarbonization of Thermal Power will proceed.

MHI Group will continue to develop technologies and invest extensively in building solutions ecosystems to contribute to decarbonization in line with local needs.





Build an innovative solutions ecosystem to realize a carbon neutral future

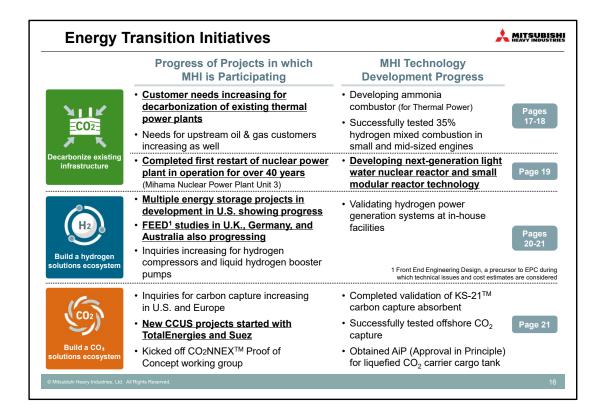






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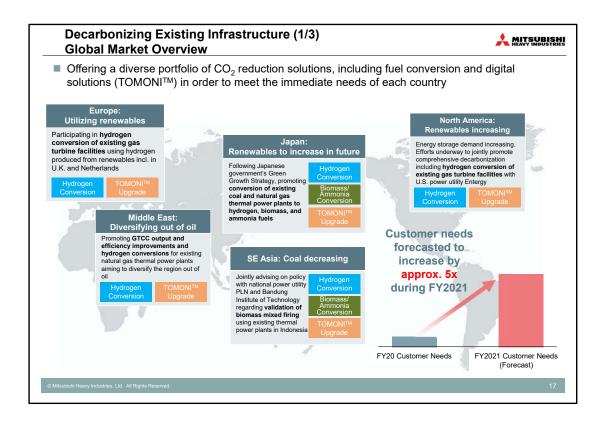
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Regarding the decarbonization of existing infrastructure, customer needs are increasing for the decarbonization of existing thermal power plants. We are also supporting the restart of nuclear power plants in Japan and pursuing the development of next-generation light water reactors and small modular reactors.

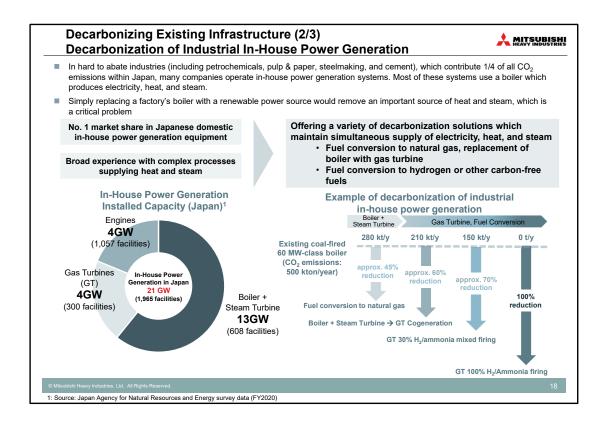
In the hydrogen solutions ecosystem space, multiple energy storage projects currently in development in the U.S. are showing progress. Steady progress is also being made in European projects.

Work on building a ${\rm CO_2}$ solutions ecosystem continues to be very active, with two new projects with TotalEnergies and Suez recently kicking off.



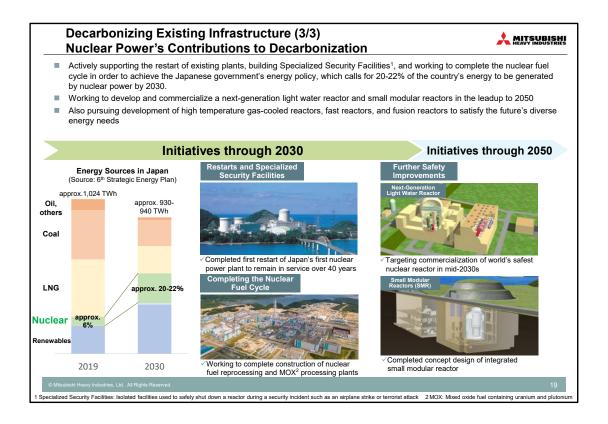
The market has seen a rapid increase in need for fuel conversion from coal and natural gas to hydrogen, biomass, ammonia, and other fuels, as well as improved operability leveraging digitalization.

As shown in the lower right corner, customer needs have rapidly increased by a factor of 5 compared to last year, and we expect to see more business opportunities in the future.



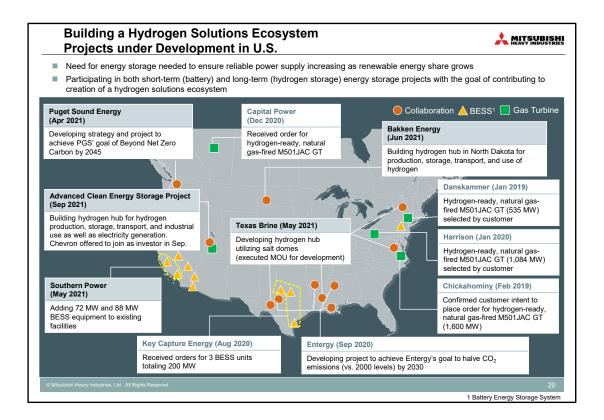
Industrial sectors such as petrochemicals, paper, steel, and cement account for about a quarter of Japan's CO_2 emissions. They have their own power generation facilities, many which are boiler-based systems that supply electricity along with heat and steam.

The challenge with boiler-based systems is that switching to renewable energy alone cannot supply the heat and steam needed to run a plant. MHI has the largest share in the Japanese domestic in-house power generation equipment market, and we have broad experience in thermal processes that supply heat and steam. Leveraging our unique position, we will propose solutions to meet our customers' needs and commercialize these solutions.



In the Nuclear Power space, MHI Group will promote efforts to restart existing plants and complete the nuclear fuel cycle in order to achieve the Japanese government's target to raise nuclear power's share to 20-22% by 2030.

In the first half of this fiscal year, we also supported the restart of a nuclear plant that has been in operation for over 40 years, a first for Japan. Going forward, we will focus on the development and commercialization of next-generation light water reactors and small modular reactors with even higher safety standards in the leadup to 2050. In the future, we will also work on high temperature gascooled reactors and fusion reactors.

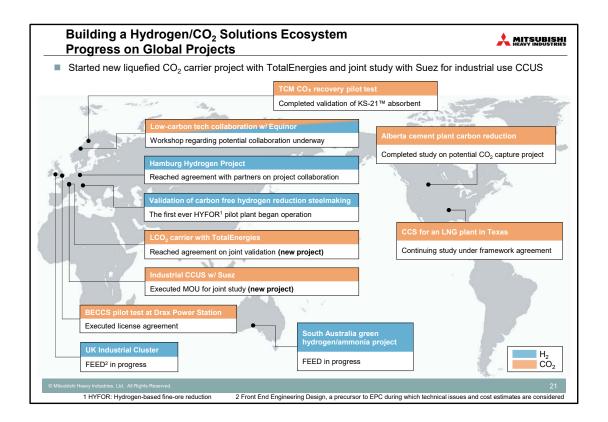


As renewable energy's share increases in the U.S., the need for energy storage to ensure the stability of electric grids is growing.

MHI is participating in two types of energy storage projects: batteries for short-term storage and hydrogen storage for long-term storage.

In the area of hydrogen storage, including the Advanced Clean Energy Storage Project in Utah, four new projects have been launched in the past six months.

Once hydrogen storage projects are realized, we hope to use these sites as hubs to win business converting both new and existing gas turbine facilities to hydrogen.



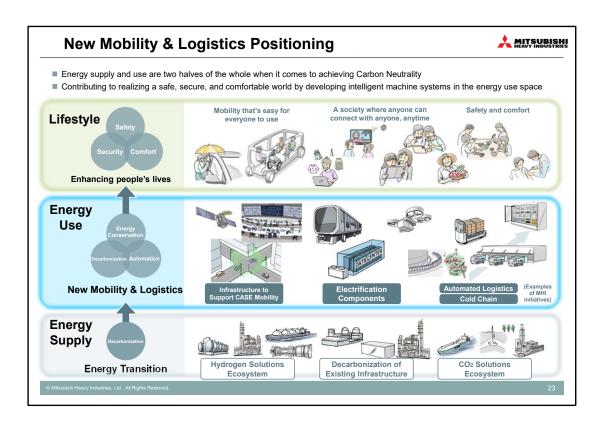
We recently added two new MOUs, one with TotalEnergies for joint validation of liquefied ${\rm CO_2}$ carriers and another with Suez for a joint study on CCUS for industrial use.

Other projects are also making steady progress.



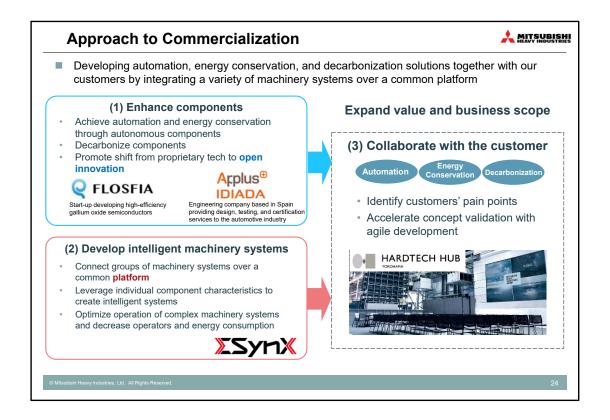
III-2. New Mobility & Logistics

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Rapid realization of a Carbon Neutral world will require not only the Energy Transition, but also efforts by energy users to decarbonize and conserve energy.

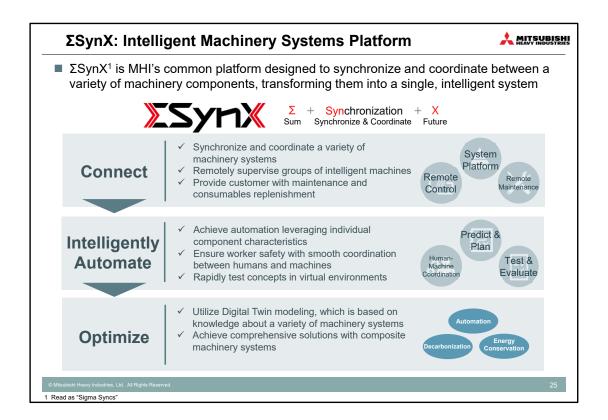
We have named this area New Mobility & Logistics. We will promote decarbonization, automation, and energy conservation in energy-using businesses with high potential for growth and/or innovation with the goal of enriching people's lives.



In the New Mobility & Logistics space, we will work with our customers to create solutions based on two approaches: the enhancement of components and the development of intelligent machinery systems.

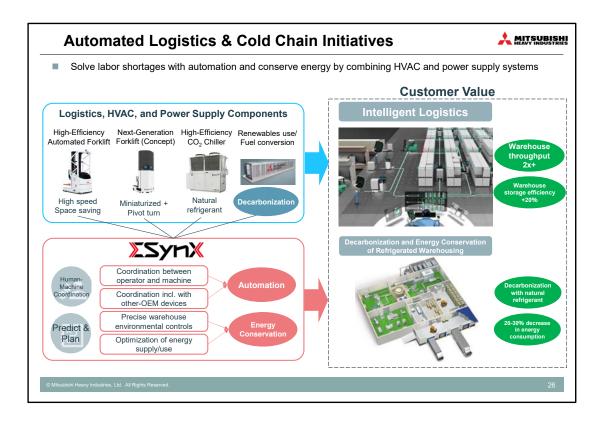
First, we will enhance components using $\Sigma SynX$, a common platform, to connect and advance the development of intelligent machinery systems. By doing so, we will create solutions to address our customers' various pain points.

We have already started some technical demonstrations of these technologies with customers at the Hardtech Hub facility in Yokohama.



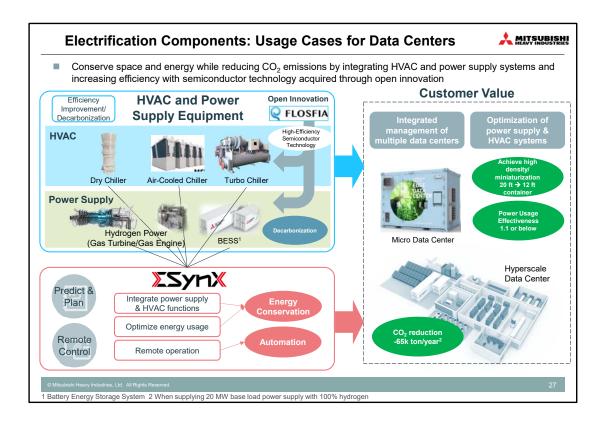
ΣSynX is MHI's common digital technology platform designed to assist the intelligent automation of machinery systems.

ΣSynX connects intelligent machinery systems and leverages their individual characteristics while optimizing them using Digital Twin modeling.



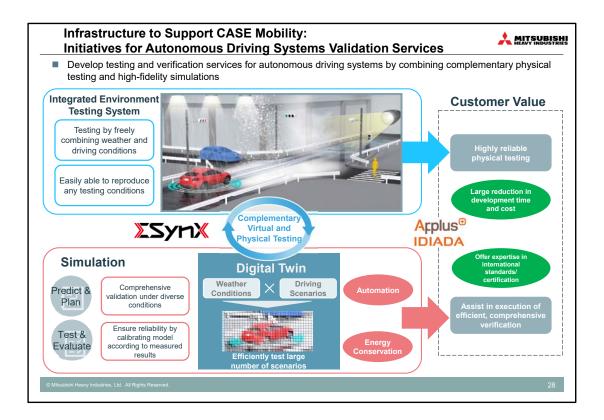
MHI Group has developed key components for automated logistics and Cold Chain, such as an unmanned forklift truck with unprecedentedly high efficiency and a CO_2 -based natural refrigerant chiller. By linking these components with $\Sigma SynX$, we will be able to provide added value that decreases the number of operators and saves energy.

These components, which we have already begun demonstrating, will realize a more than twofold improvement in warehouse throughput and will raise storage efficiency by 20%.



In our use cases for data centers, a fast-growing market, we are promoting the use of a variety of HVAC equipment and decarbonized power supply systems as key components. By linking these components with $\Sigma SynX$, we can optimize energy use and save energy.

With this combination of systems, we can provide our customers with solutions to optimize both power supply and HVAC systems, ultimately enabling data centers to achieve high-density miniaturization while increasing power usage effectiveness.

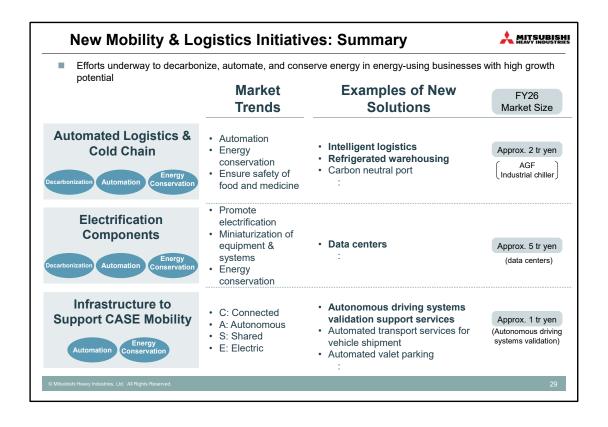


Autonomous driving systems development involves the testing of various scenarios. MHI Group has developed a testing system that can simulate and reproduce any driving environment in order to provide highly reliable testing services for automated driving systems.

Even with this testing system, it is expensive and time-consuming to test every scenario, so it is necessary to perform digital simulations.

By combining an integrated testing environment system with digital simulation, we can offer our customers a highly efficient validation service for automated driving systems.

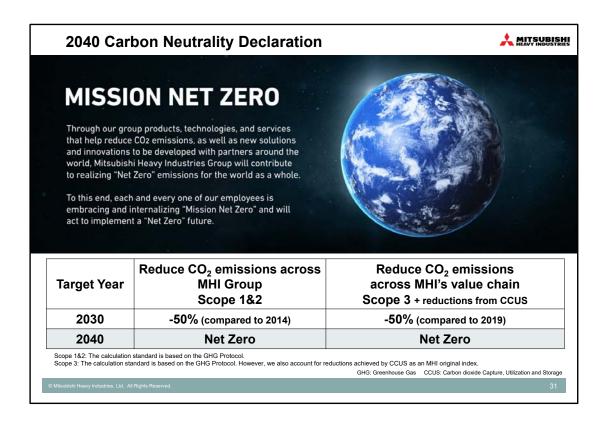
We are planning to expand our services through a partnership with Applus+ IDIADA, an engineering company with expertise in certification testing for the European automotive industry.





IV. Carbon Neutrality Declaration

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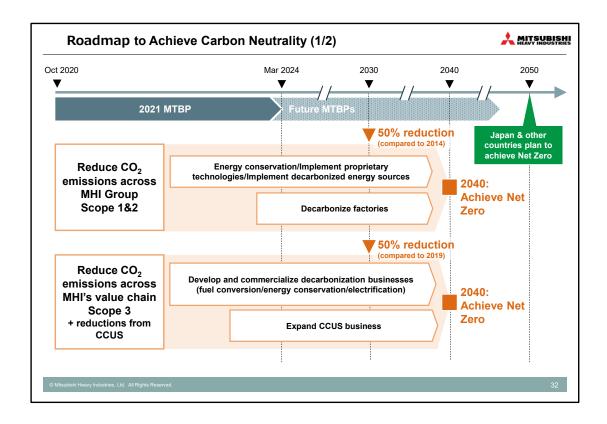
Today, I am happy to announce MHI Group's new 2040 Carbon Neutrality Declaration. Achieving Carbon Neutrality is a global challenge, and as a proven leader in the field of decarbonization, we believe that we have a responsibility to lead the fight against climate change.

Through our products, technologies, and services that help reduce CO₂ emissions, we will join forces with our partners around the world and contribute to the realization of a Net Zero future.

We have created a slogan, "Mission Net Zero," and each and every member of MHI Group, including myself, is determined to put it into action.

Regarding specific targets, we aim to reduce our own CO_2 emissions (Scope 1&2) by 50% in 2030 compared to 2014 and to achieve Net Zero (Scope 3 + reductions from CCUS) by 2040.

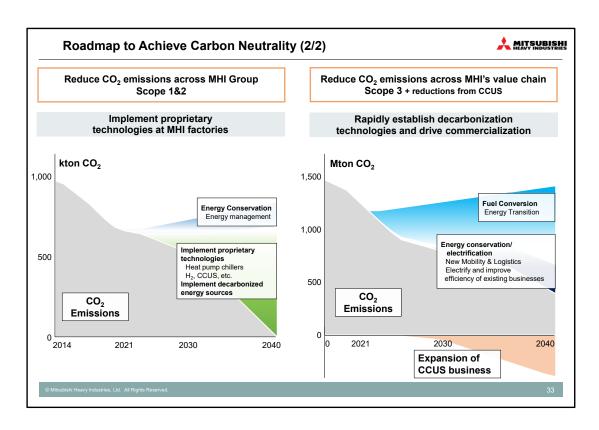
Taking the contributions of our carbon capture technologies into consideration, we are aiming for a 50% reduction in CO_2 emissions from our products in 2030 and Net Zero in 2040, compared to 2019.



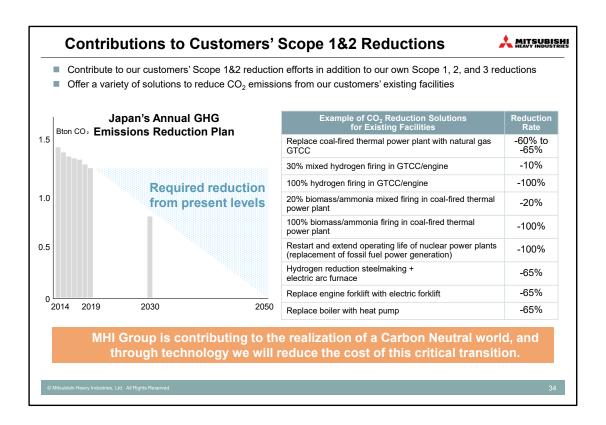
MHI Group will reduce ${\rm CO_2}$ emissions across all of our locations by implementing our proprietary decarbonization technologies and conserving energy, both of which are already underway.

We will demonstrate the Carbon Neutral Factory concept at our own facilities and deploy the results of these initiatives to provide decarbonization solutions to our customers.

Regarding reducing our products' CO₂ emissions, we will achieve Net Zero through fuel conversions, energy conservation, electrification, and expanding carbon capture.



MHI Group will pursue the decarbonization initiatives outlined previously in order to reduce ${\rm CO_2}$ emissions as shown in these graphs.



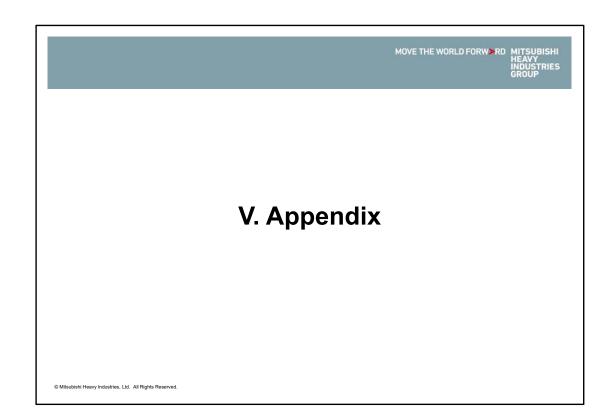
As a leading energy company, MHI Group will continue to focus on helping our customers reduce their Scope 1&2 CO₂ emissions. This includes contributing to the reduction of CO₂ emissions from our customers' existing facilities in all of our business areas.

MHI continues to offer a broad array of solutions to our customers. For example, we have proposed decarbonization through the replacement of gas turbines, retrofitting of existing facilities, restart of nuclear power plants, and electrification of equipment. By doing so, we hope to contribute to the emission reduction goals of each country and indeed the whole world.

We recognize that achieving Carbon Neutrality requires a long-term approach involving the effective use of existing facilities while implementing innovative technologies and continually updating them.

We at MHI Group are determined to contribute to the realization of a Carbon Neutral world, and through technology we will reduce the cost of this critical transition.

This concludes my presentation. Thank you.



1H FY2021 Highlights (1/4): Energy Systems



Grew high-efficiency GTCC business



- Received order for 1.5 GW-class GTCC in Uzbekistan
- Contributing to CO₂ reductions with M701JAC, the latest model of high-efficiency GTCC

Solar power project in U.S.



• Acquisition and operation of a solar power project in U.S. with Osaka Gas

Completed reactor structure replacement work



- Improved safety of KEPCO Mihama Nuclear Power Plant Unit 3 in accordance with new safety
- Standards
 Contributed to safe operation of Japan's first nuclear reactor to remain in service for over 40 years

Completed TF coils for ITER in



Manufactured the fourth toroidal field (TF) coil, the world's largest toroidal superconducting coil, for experimental fusion reactor ITER

- Contributing to CO₂ emissions reduction with ammonia fuel
- Pursuing 100% ammonia combustion utilizing existing facilities

Implemented intelligent solutions product TOMONI™



- Implemented TOMONITM at a geothermal power plant in Mexico
- Improved performance and reliability of distributed power sources

1H FY2021 Highlights (2/4): Plants & Infrastructure Systems





Participating for the first time in international urban rail transportation operation businesses: Dubai Metro: Operation & maintenance Dubai Tram: Operation services



- Executed framework agreement for CCS system at an LNG plant in Texas, U.S.
- Progress toward the world's first system to capture CO₂ from an LNG liquefication plant's Source: NextDecade Corp

Developing liquefied CO₂



- Began study on LCO₂ carrier with TotalEnergies (France)
 Accelerating CCUS value chain technology and market development to contribute to CO₂ emissions reduction

Expanding box making machine sales



 Demand for cardboard is increasing in line with growing distribution volume in the manufacturing sector as a whole. Increasing sales of one of the world's fastest (400 sheets/min) box making machines (EVOL) mainly in North America

Contributing to CO₂ reduction in steelmaking



- HYFOR pilot plant began operation
 Achieved the world's first fine ore direct reduction process using hydrogen and reduced capital investment amount and operating costs
 HYFOR: Hydrogen-based fine-ore reduction



- · Supplied incinerators to the first non-industrial waste-to-energy plant in Xiaogan City, Hubei Province, China
- The two incinerators were the latest stoker-type with a capacity of 750 tons/day each

1H FY2021 Highlights (3/4): Logistics, Thermal & Drive Systems 🚣 MATT SUBSTREES



Contributing to realization of the carbon neutral port

Tire-type gantry crane





Fuel cell forklift

Contributing to realization of the carbon neutral port (CNP) through development of new models of cargo handling equipment as well as conversion of existing equipment to hydrogen conversio fuel cells



- Developed Japan's first laser-guided autonomous forklift for use in refrigerated warehouses in collaboration with Nichirei Logistics Group Inc.
- This product aims to reduce the burden on workers in low-temperature environments and eliminate chronic labor shortages



Named 2021 Best Brand of Air Conditioners by Australian consumer advocacy group CHOICE for fourth year running. Received 2021 Most Satisfied Customer Award in air conditioners category from consumer trends research agency Canstar Blue for third year in a row.



An air-source circulation heat pump jointly developed with Chubu Electric Power Co., Inc., Q-ton Circulation received Grand Prize at the 24th Protect the Ozone Layer, Prevent Global Warming Awards sponsored by Nikkan Kogyo Shimbun Ltd. The product was praised for its environmentally friendly, energy conserving technology.

Municipal gas + hydrogen combustion test



- Successfully performed municipal gas + hydrogen mixed combustion test using commercial gas engine for cogeneration system use (joint effort with Toho Gas)
- This was the first time that rated power output was produced with 35% mixed hydrogen combustion in Japan

Developed electric compressor



- · Developed products for electric vehicles which will also contribute to decarbonization
- · Started testing compressors for fuel cell vehicles

1H FY2021 Highlights (4/4): Aircraft, Defense & Space



Launched frigate "Noshiro"



 Launched new 3,900-ton-class frigate at Nagasaki Shipyard on contract from Japan Ministry of Defense

H-IIA launch vehicle



- Successfully launched new replacement quasizenith satellite with H-IIA Launch Vehicle No. 44
- Launch of H-IIA Launch Vehicle No. 45 planned in 2H FY2021

Delivered two prototypes of multirole naval helicopter (upgraded variant)



- Cutting-edge naval helicopter with performance upgrades to on-board systems and flight capabilities
- Delivered two prototypes to Japan Ministry of Defense

Next-generation fighter jet



- Executed contract with Japan Ministry of Defense in 2020
- Developing with other leading Japanese companies

Image source: Defense White Paper 2020

New naval & governmental ships subsidiary starts business



 Mitsubishi Heavy Industries Maritime Systems, which continues the former Mitsui E&S Holding naval & governmental ships businesses, officially started business on Oct 1

Expanded CRJ after-sales



- Expanding West Virginia Service Center (contract signed in June)
- Executed CRJ after-sales service partnership agreement with Regional One (U.S.) (contract signed in Sep)

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Targets and Initiatives to Achieve Carbon Neutrality Assumptions & Supplementary Information



Reduce CO₂ emissions across MHI Group Scope 1&2

- Scope 1 represents CO₂ emissions arising directly from MHI Group's operations (fuel combustion and industrial processes). Scope 2 represents indirect CO₂ 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 CO₂ emissions reduction targets and some degree of hydrogen and CO₂ solutions ecosystems development

Reduce CO₂
emissions across
MHI's value chain
Scope 3
+ reductions from
CCUS

- Scope 3 represents indirect CO₂ emissions arising from other companies across our value chain
 excluding that covered by Scope 1 & 2. This Scope includes 15 categories, approximately 99% of which
 comprise CO₂ 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.
- ullet Based on the GHG Protocol, total ${
 m CO_2}$ emissions expected over a product's lifetime are recorded during the year in which it was sold
- Main assumptions include the active adoption of carbon-free products by each company in accordance with each country's CO₂ reduction goals as well as some degree of hydrogen and CO₂ solutions ecosystems development

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