TOKUYAMA TCFD REPORT 2026

April 1, 2025 – March 31, 2026

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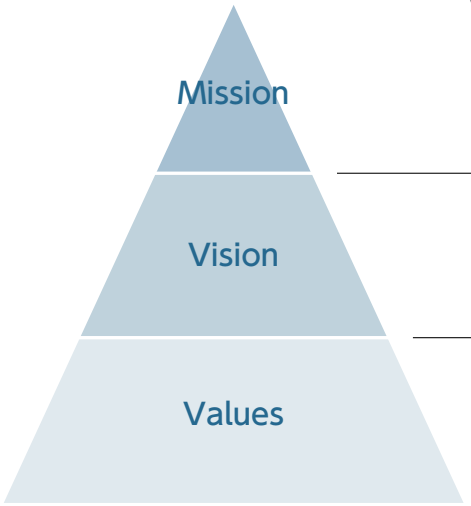
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The Tokuyama Group expressed its support for the TCFD recommendations in 2021 and has since been enhancing its climate-related disclosures. In this fourth release of our TCFD Report, covering fiscal 2025, we have further strengthened our analysis of risks and opportunities. We disclose the Group's climate change initiatives in line with the four pillars of Governance, Strategy, Risk Management, Metrics and Targets.

Introduction

As shown in Figure 1, "Our Philosophy," the Tokuyama Group established the eight-point "Tokuyama Group Sustainability Principles" in April 2023, based on our Mission — "To create a bright future in harmony with the environment, in collaboration with its customers, based on chemistry" — in order to realize our Vision and achieve the Group's sustainable growth and mid- to long-term enhancement of corporate value. In accordance with this Mission and these Principles, the Group will continue to minimize the environmental impact arising from its business activities while creating new value in harmony with the environment, through the supply of products that contribute to solving social issues.

Figure 1: Our Philosophy



Corporate Slogan: **"For the People of Tomorrow"**

To create a bright future in harmony with the environment, in collaboration with its customers, based on chemistry

- Create value by starting with the customer update
- Sharpen and leverage our core competencies to continually expand into new domains
- Create an environment where employees and their families can stay healthy, engaged, and proud of their work
- Engage with communities and societies across the globe

- Earn trust and profits through customer satisfaction
- Think broadly and aim high
- Challenge convention and strive to raise the bar
- Act with integrity, perseverance, curiosity, and courage

Figure 2: Tokuyama Group Sustainability Principles

Tokuyama Group Sustainability Principles

Tokuyama's mission is "To create a bright future in harmony with the environment, in collaboration with its customers, based on chemistry." In order to fulfill this mission, we have established the following principles on the promotion of sustainability.

1. We ensure that all of our business activities help solve social issues and contribute to a sustainable future.
2. We respect human rights, individuality, and diversity, and we strive to deliver job satisfaction for our employees and business partners by implementing human resources development and health management.
3. We practice thorough compliance and conduct transparent business activities in good faith.
4. We always give top priority to safety, and we work hard to prevent accidents and ensure occupational health and safety.
5. We operate in harmony with the global environment by striving to combat global warming and protect biodiversity.
6. We deliver products and services that meet the needs of customers and consumers and provide them with peace of mind.
7. We contribute to local communities by acting as a good corporate citizen in the countries and regions in which we operate.
8. We maintain good communication with all of our diverse stakeholders.

Established April 1, 2023

Governance

Our Approach to Climate Change

The Tokuyama Group regards climate change as one of its most significant management issues, and Medium-Term Management Plan 2025 ("MTMP 2025"), covering fiscal 2021 as its first year, designated "Contribute to mitigation of global warming" as one of its priority issues.

As part of our responsibility as a company with substantial GHG emissions, we announced our support of the TCFD recommendations in February 2021 and began disclosure based on TCFD from March 2022. Five-Year Business Plan 2030 ("FBP2030"), disclosed in May 2026, carries forward this stance, designating "Take responsibility for and address issues related to global environment" as one of the company-wide priority issues (materiality) and committing to reducing GHG emissions as part of this materiality.

Figure 3: Medium-Term Management Plan 2025 — Priority Issues

1. Transform business portfolio	Increase growth businesses' share of consolidated net sales to over 50%
2. Contribute to mitigation of global warming	Expedite development/commercialization of next-gen energy technologies; reduce GHG* emissions by 30%** by FY2030
3. Practice socially responsible management	Step up high-priority CSR initiatives to lay groundwork for further growth and realize our vision

* GHG: Greenhouse Gas
** Base year FY2019

Table 1: Five-Year Business Plan 2030 — "Materiality"

Materiality	Objective/Background of Selection as Materiality	Key Initiatives
Reinvent business portfolio	Accelerate the shift to a business structure centered on the electronics and healthcare fields to achieve medium- to long-term growth.	▸ Investing concentrated in growth areas ▸ Entering new fields through business investment ▸ Restructuring and realigning businesses
Co-creation of businesses and products with customers	Achieve growth by identifying customer needs and industry trends, and by becoming an organization that continuously creates new businesses and products through fresh perspectives and R&D.	▸ Continuously creating new products to meet customer needs ▸ Pursuing strengths such as proprietary technology, products, and knowhow ▸ Developing new products, applications, and markets
Pursue operational excellence	Improve operational efficiency through DX (digital transformation), AI, and other technologies to maintain competitiveness, and ensure safe and stable business operations.	▸ Reforming business processes by leveraging AI, etc. ▸ Establishing reliable supply chains ▸ Continuing to manufacture safely and stably
Take responsibility for and address issues related to global environment	Fulfill our responsibility as a chemical manufacturer reliant on natural capital to protect the richness of nature and the environment, particularly by steadily reducing GHG (greenhouse gas) emissions, which have a significant environmental impact.	▸ Reducing GHG emissions ▸ Creating environmentally friendly products that meet societal needs ▸ Minimizing environmental impacts and preserving the richness of nature and the environment
Strengthen governance and resilience	Ensure high-quality management through legal compliance, consideration for diverse stakeholders, and enhanced risk management.	▸ Building sound and favorable relationships with stakeholders ▸ Promoting responsible value chain management ▸ Strengthening organizational resilience through an all-hazard approach
Leverage human capital	Strengthen medium- to long-term competitiveness by ensuring a diversity of knowledge and experience essential for sustainable growth and developing highly engaged personnel.	▸ Developing highly engaged personnel ▸ Improving the effectiveness of organizational management in enabling diverse personnel to thrive ▸ Practicing health and productivity management

Note: A more detailed version that includes KGIs and KPIs will be disclosed at a later date.

a. Board Oversight

Sustainability governance

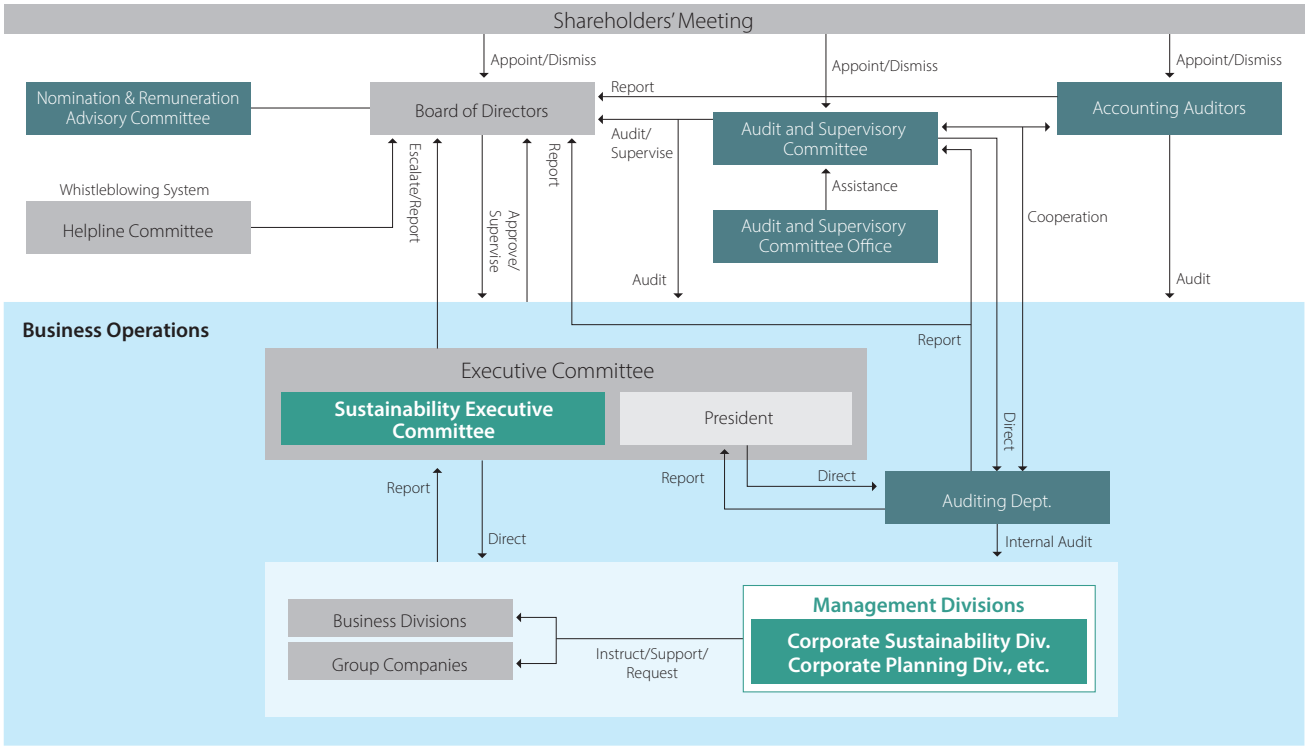
The Board of Directors recognizes that addressing sustainability-related challenges is an important management matter that leads not only to risk reduction but also to opportunities, and the Board proactively and actively addresses these issues from the perspective of enhancing medium- to long-term corporate value. To reliably fulfill this responsibility, "Sustainability" has been included as a category in directors' skills matrix, and appropriate personnel are selected accordingly. For details, please refer to the Tokuyama Report (Integrated Report).

From April 2025, in order to further advance sustainability management and execute internal controls effectively and efficiently, the Company reorganized the CSR Promotion Council into the "Sustainability Executive Committee," chaired by the President and Executive Officer, with executive officers as members and directors also able to attend. Under the direction determined by the Board of Directors, the Sustainability Executive Committee deliberates and decides on sustainability matters, including the formulation and approval of company-wide sustainability plans and confirmation of their execution, as well as important matters concerning internal control. Important sustainability-related disclosure matters are also discussed and decided at this meeting.

The Sustainability Executive Committee has established expert committees for highly specialized and important areas of sustainability and internal control, including compliance, financial reporting, antitrust law compliance, security trade control, cyber and information security, safety and environmental measures, and product safety and quality. Each expert committee is chaired by the director in charge (see Figure 9: Committees with Jurisdiction over Risks, p.40).

Figure 4: Corporate Governance Structure

As of June 26, 2026



Sustainability initiatives are subject to planned audits by the Auditing Department regarding their execution status, with audit results reported to the President and the Board of Directors.

Board Oversight of Climate-Related Matters

As noted above, climate-related matters are positioned as an urgent challenge for the Company through MTMP 2025 and FBP 2030, with initiatives advanced under the responsibility of the Representative Director, President and Executive Officer.

Climate-related matters (such as company policy on addressing climate change and the formulation of medium- to long-term strategies and selection of investment projects to address it) are deliberated and resolved at the Executive Committee as needed, and are also reported to the Board of Directors as shown in Table 2. Among these, matters of particular importance are resolved by the Board of Directors following deliberation at the Executive Committee.

Table 2: Reporting/Approval Process and Frequency for Climate-Related Matters Involving the Board of Directors

Approval Process	FY2025 Results	Remarks
Board of Directors	18 times	● Reports on and oversight of sustainability matters including climate change ● Reports on and oversight of matters contributing to realization of key measures under the medium-term management plan
Sustainability Executive Committee	4 times	● Chaired by the President; activities of 8 expert committees reported ● Meeting content reported to the Board of Directors
Environment Committee	1 time	● This committee oversees onsite environmental audits conducted across the Group, and monitors the energy-saving activities of individual Group sites ● Receives detailed reports on site-specific conditions and activities
Carbon Neutral Strategy Division Business Execution Report Meeting	5 times	● Reporting progress on key issues

Table 3: Process, Frequency, and Monitoring Mechanisms for Management Reporting

Reporting Process	Frequency (FY2025 Results)	Monitoring Mechanism
Executive Committee	In principle twice a month (27 times)	Climate change strategy formulation and capital investment deliberated under the MTMP 2025 priority issue of "helping to fight global warming"
Sustainability Executive Committee	Regular: once a year (4 times)	Chaired by the President. Manages progress on materiality and company-wide risk management, and oversees expert committees such as the Environment Committee and Safety Committee, leading the Company's sustainability initiatives
Environment Committee	Once a year (1 time)	Overall coordination of environmental audits conducted at each production site, energy-saving activity reports, and setting of environmental targets for the following year
Carbon Neutral Working Group	As needed (6 times)	Promotes company-wide, cross-organizational practical initiatives in response to TCFD recommendations, under the Environment Committee
Carbon Neutral Strategy Division Department Head/ Section Head Meetings	Monthly (12 times)	Responsible for examining and implementing measures

b. Management's Role

From FY2025, climate change initiatives have been undertaken by the Sustainability Executive Committee and the Environment Committee under it. The Sustainability Executive Committee holds an annual regular meeting primarily for reporting purposes, as well as ad hoc meetings convened as part of the Executive Committee, which meets twice a month, when necessary. At the regular meeting, the Committee reviews annual reports, plans for the following year, and risks. In addition, by convening ad hoc meetings as necessary, the Company has established a framework that enables timely deliberation and decision-making on individual sustainability issues, including climate change responses that are inseparable from management strategy. Measures involving investments and similar matters continue to be deliberated and reviewed by the Executive Committee, as before.

Figure 5: System for Promoting Carbon Neutrality Achievement

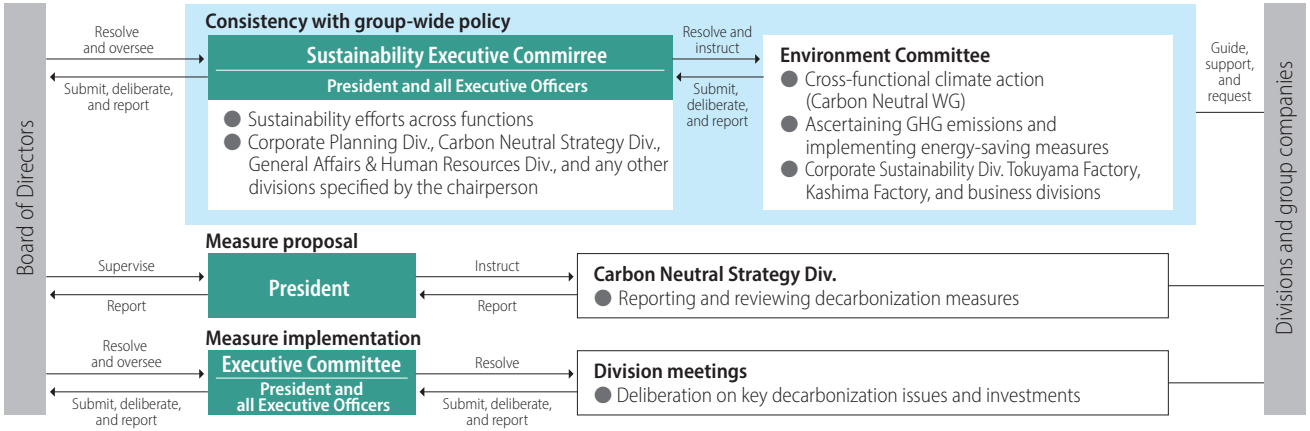
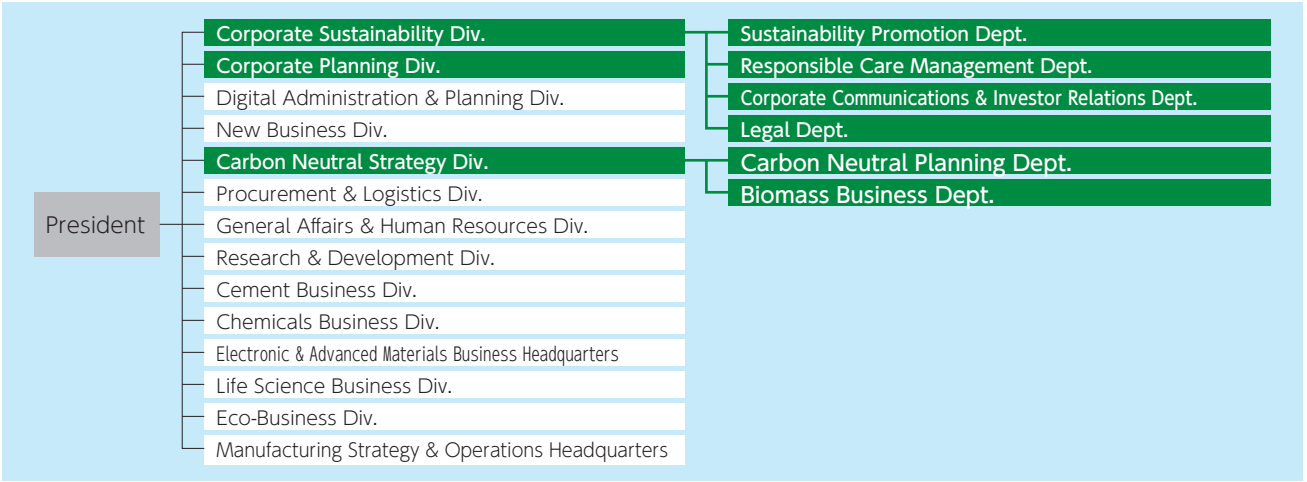


Figure 6 shows the organizations in charge of climate change risk.

To advance climate change initiatives in earnest, the Company established the "Carbon Neutral Strategy Office" as an organization under the direct authority of the President in April 2021. Subsequently, in April 2023, as the initiative moved from the conceptual stage to the implementation phase, the organization was upgraded to the "Carbon Neutral Strategy Division," equivalent to an independent department. Initiatives concerning Scope 1 and Scope 2, the principal sources of Tokuyama's GHG emissions, are handled primarily by this Division.

From April 2025, CSR management was redefined into the broader and higher-level concept of sustainability management, and accordingly the CSR Promotion Division was renamed the Corporate Sustainability Division. The

Figure 6: Departments Responsible for Climate Change Risk



Sustainability Promotion Group under this Division works together with the Corporate Planning Division to strengthen governance and manage risk. In addition, from a group management perspective, the RC (Responsible Care) Promotion Group is responsible for company-wide collection and analysis of environment-related data. Information disclosure is handled by the Public Relations & IR Group, and the Legal Group responds in the event that legal risks arise.

Strategy

MTMP 2025 incorporated "risks" such as the impact of carbon costs from the introduction of carbon pricing, the impact of changes in customers' procurement policies, and the impact on fund-raising from changes in the policies of financial and investment institutions, as well as new "business opportunities" in the environmental field. FBP 2030 likewise appropriately identifies and analyzes these risks and opportunities and reflects them precisely in business strategy. We have also conducted 1.5°C and 4°C scenario analyses on a time horizon extending from the present to 2050, referencing transition risk scenarios such as the IEA's NZE and physical risk scenarios such as the IPCC's RCP8.5 and SSP3-7.0. Through the transformation of our business portfolio from an energy-intensive model to a value-creating one, we aim to reduce climate change risk while monetizing promising business opportunities.

a. Short-, Medium-, and Long-Term Climate-Related Risks and Opportunities

We have analyzed the Group's climate change-related risks and opportunities since FY2021. In FY2022, we evaluated the degree of financial impact, timing of occurrence, degree of business impact, and priority of these risks and opportunities on the Group.

Based on these results, we have been examining and implementing specific countermeasures since FY2023. By periodically reviewing risk analyses and the specific countermeasures based on them, we will continue to enhance the resilience of our organizational strategy.

Table 4: Climate Change Risks (Scenario Analysis)

Scenario	Risk category	Target of risk assessment	Potential impacts on the Group (financial) (identified risks)	Financial impact	Timing of risk materialization	Impact on business	Priority level	Countermeasures
1.5°C	Government policy and regulations	1. Carbon pricing and energy procurement costs	● Increase in operating costs due to expanded carbon pricing	Large	Medium to long term	Large	High	● Initiatives to reduce GHG emissions through fuel conversion (biomass and ammonia) ● Promoting GHG emission reduction measures by adopting internal carbon pricing ● Enhancing initiatives to help promote green transformation by participating in the GX League
			● Increase in mitigation measure costs due to tightening of GHG emission regulations	Large	Medium to long term	Large	High	
	Technology	2. Green process adoption measures	● Rising production and procurement costs due to green transition	Large	Medium term	Large	High	● Studying ammonia supply chain establishment at the Shunan industrial complex ● Ensuring stable procurement of certified biomass fuel by building relationships with suppliers ● Development of black pellets ● Calculation of carbon footprints of product (CFP) ● Value proposition of green products
			● Increased costs for green material procurement and green process conversion due to lack of technology and market maturity	Large	Medium to long term	Large	High	
	Evaluation	3. Evaluation by stakeholders	● Decline in market value and increase in financing costs due to a poor evaluation of carbon neutrality initiatives ● Risk of litigation by local residents to shut down or decommission coal-fired power plants owned by Tokuyama ● Sustainability risks for biomass fuel	Large	Medium to long term	Large	High	● Improving information disclosure and steadily working to reduce GHG emissions ● Dialogue with the local community ● Business portfolio transformation ● Certified biomass fuel procurement
	Market	4. Penetration of green procurement by customers	● Rejection of products by the market based on large carbon footprint evaluation ● Decrease in profitability due to the inability to pass on the price fully cover costs for green process adoption	Large	Medium to long term	Large	High	● Steadily reducing GHG emissions through energy conservation and fuel conversion, etc. ● Studying mass balance certification ● Enhancing supply chain cooperation to form a green market ● CFP evaluation system creation
		5. Lost opportunities due to a failure to keep up with green market expansion	● Lost opportunities due to the delay in establishing a green supply chain ● Lost opportunities due to insufficient efforts for entering the circular economy and the carbon recycling field	Large	Medium to long term	Large	High	● Prompt implementation of measures
4°C	Physical risks (acute)	6. More frequent extreme weather events and sea level rise	● Wind and flood damage to production facilities; production plan delay and increased costs due to supply chain disruptions, etc.	Moderate	Long term	Moderate	Moderate	● Enhancing business continuity planning
	Physical risks (chronic)	7. Long-term intensification of extreme weather events and rising sea levels	● Decrease in production capacity due to insufficient factory cooling capacity caused by rising average temperatures ● Production halts due to storm surges caused by rising sea levels	Minimal	Long term	Minimal	Low	● Maintaining capacity through equipment modifications, etc.

*Short term: through FY2026, Medium term: through FY2035, Long term: through FY2050

Policy / Regulation

1. Carbon Pricing and Energy Procurement Costs

Impact on the Group

Increased Operating Costs from Stronger Carbon Pricing (Medium–Long Term)

The Company uses coal as fuel for its in-house power generation facilities and is therefore subject to the petroleum and coal tax, including the tax for climate change mitigation. In FY2025, these taxes amounted to approximately ¥1.45 billion, equivalent to about 4% of operating profit, and are already having a certain cost impact.

Going forward, under the Japanese government's "Growth-Oriented Carbon Pricing Concept," the emissions trading system (GX-ETS) is scheduled to be fully launched in FY2026, followed by the introduction of a fossil fuel levy from FY2028. As a result, the cost burden associated with carbon pricing is expected to increase over the medium to long term.

Under GX-ETS, a phased approach to the allocation of obligations has been adopted, including benchmark-based and grandfathering allocation methods by industry. Given the current system design and the Company's progress in reducing emissions, the actual cash outflow associated with emissions trading is likely to remain limited through around FY2030.

On the other hand, if free allocation is gradually reduced or progress in emissions reduction falls short of expectations, the Company could face a shortage of emission allowances, and from around the mid-2030s may need to purchase emission allowances. In such a case, depending on emissions levels and carbon prices, this could result in annual cost increases of several billion yen.

In addition, carbon price levels and system details, including the pace of reduction in free allocation, scope, and timing of obligation fulfillment, may change in the future. Accordingly, the resulting cost impact could fluctuate significantly depending on future policy and regulatory developments.

As described above, stronger carbon pricing may have a medium- to long-term impact on the Group's energy and operating costs.

Policy / Regulation

1. Carbon Pricing and Energy Procurement Costs

Impact on the Group

Increased Countermeasure Costs from Stronger GHG Emissions Regulations (Medium–Long Term)

The Act on Rationalization of Energy Use and Shift to Non-fossil Energy (Tentative translation; hereinafter, the "Revised Energy Conservation Act"), which came into effect in April 2023, requires initiatives to shift to non-fossil energy in addition to conventional energy conservation efforts. It also sets indicative quantitative targets for FY2030 for designated businesses above a certain scale.

Specifically, for cement manufacturing, the Revised Energy Conservation Act sets an indicative target of a 28% non-fossil fuel ratio in the firing process. For the soda industry, which is categorized under the chemical industry and uses coal as its main fuel, it sets an indicative target of a 30% reduction in coal consumption compared with FY2013. Based on these indicators, the Company has set the following voluntary targets:

[Cement Manufacturing] Non-fossil fuel ratio in the firing process: 50%

[Chemical Industry (Soda Industry)] Reduction in coal consumption compared with FY2013: 45%

Although there are no direct penalties for failure to achieve these targets, if progress is deemed significantly insufficient, the Company may be subject to recommendations or public disclosure of its name, taking into account the level of available technology and the supply status of non-fossil energy.

The Company has set a voluntary target of reducing GHG emissions from in-house power generation, among fuel-derived GHG emissions, by 50% by FY2030 compared with FY2019, and is considering conversion to non-fossil fuels, including biomass and ammonia.

The Company initially estimated emissions reductions of approximately 30% from biomass co-firing and approximately 20% from ammonia co-firing, requiring investments of approximately ¥11.0 billion for biomass and approximately ¥15.0 billion for ammonia, respectively.

However, due to factors such as uncertainty in fuel supply, cost competitiveness, and technological maturity, these fuel conversion initiatives may not proceed at the investment scale initially assumed. As a result, the following risks exist:

•The transition to non-fossil fuels may be delayed relative to expectations.

•The Company may become more susceptible to the impact of rising carbon prices and energy costs.

In addition:

•Prices of biomass and ammonia may remain persistently high compared with fossil fuels.

•Additional investment may be required in the future, depending on technological progress and infrastructure development.

For these reasons, energy procurement costs and decarbonization-related costs may increase over the medium to long term and remain subject to volatility.

Policy / Regulation

1. Carbon Pricing and Energy Procurement Costs

Countermeasures

Reducing GHG Emissions through Fuel Conversion (Biomass and Ammonia)

In response to the risk of increased manufacturing costs from the introduction and strengthening of carbon pricing, it is important to advance reductions in GHG emissions. The Company has set a voluntary target of reducing GHG emissions from in-house power generation by 50% by FY2030 compared with FY2019, and is promoting the conversion of its in-house power generation facilities to non-fossil fuels, including biomass and ammonia.

For biomass, facility modification work aimed at co-firing wood pellets was carried out from FY2024, and co-firing began in October 2025. We will continue to consider raising the co-firing ratio going forward.

For ammonia, the Company had been examining the possibility of beginning co-firing by FY2030 since FY2023. However, given changes in previously assumed conditions, including the availability of policy support and market conditions, we have decided not to introduce ammonia co-firing by FY2030 at this time. Ammonia remains an important fuel option for consideration at the national and regional levels, and the Company will continue to examine its use in light of policy trends, technological progress, and the business environment.

In FY2025, GHG emissions from in-house power generation were reduced by 19% compared with FY2019. Progress toward the targets under the Revised Energy Conservation Act was 20.9% for cement manufacturing and 14.7% for the soda industry.

Promoting GHG Emissions Reduction Measures through Internal Carbon Pricing

The Company has introduced Internal Carbon Pricing (ICP) at ¥10,000/t-CO_2 to incorporate future carbon costs into investment decisions for GHG emissions reduction. By factoring future carbon costs into the evaluation of investment projects, we clarify the priority of decarbonization-related measures and reflect this in decision-making.

This has helped promote initiatives to reduce GHG emissions in the short to medium term, including energy-saving investments and reductions in coal consumption through fuel conversion at in-house power generation facilities. For the capital investment related to biomass co-firing implemented in FY2024–FY2025, the investment effect taking ICP into account was used as a reference indicator, helping advance investment decisions that incorporate carbon costs.

Going forward, while monitoring trends in carbon pricing systems and changes in carbon price levels, we will continue to promote GHG emissions reduction measures through the use of ICP and address medium- to long-term cost increase risks.

Policy / Regulation

1. Carbon Pricing and Energy Procurement Costs

Countermeasures

Strengthening Initiatives Contributing to GX Realization through Participation in the GX League

The Company has participated in the GX League since FY2023 and has worked to reduce GHG emissions by setting voluntary emissions reduction targets and managing and reporting progress. The GX League is a framework in which participating companies set their own reduction targets, disclose actual emissions, and use emissions trading to promote reductions. The Company uses this framework to strengthen its response to climate change. During the first phase (FY2023–FY2025), the Company set targets and managed performance for Scope 1 and Scope 2 emissions, achieving its voluntary target (see p.46).

Furthermore, under the GX League framework, the Company received Silver Grade under the "GX Proactive Implementation Declaration," clarifying its commitment to promoting GX across the entire supply chain in addition to reducing its own emissions.

From FY2026 onward, the GX League is transitioning to a new framework with the full-scale launch of the emissions trading system (GX-ETS). The Company participates in the GX Future Consortium and GX-ETS, and will respond appropriately to future policy and regulatory developments.

Technology

2. Increased Costs from Non-Fossil Energy Conversion / Low-CFP Raw Material Procurement

Impact on the Group

Increased Costs from Use of Non-Fossil Energy and Procurement of Low-CFP Raw Materials (Medium Term)

The Company owns four coal-fired in-house power generation facilities. Of these, one is a circulating fluidized bed boiler capable of biomass-only firing, and since FY2023 the Company has increased the use of biomass and waste-derived materials such as tire chips.

The remaining three are pulverized coal-fired boilers, and additional capital investment, including facility modifications, is required to convert them to biomass or ammonia fuel. In FY2024, modification work began on one of these boilers to enable wood pellet co-firing, which commenced in October 2025.

This shift to non-fossil fuels has resulted in additional investment for facility modifications and higher procurement costs for biomass fuel, increasing power generation costs compared with conventional fossil fuel use.

Biomass fuel, in particular, entails fuel cost volatility, as procurement prices are higher than those of fossil fuels and are susceptible to supply-demand conditions.

In addition, next-generation fuels such as ammonia depend on the maturity of the relevant technologies and the development of supply infrastructure, and may require additional capital investment and higher fuel costs in the future.

As described above, as the shift to non-fossil fuels and the procurement of low-CFP raw materials progress, the Group' s energy procurement costs and manufacturing costs may increase over the medium term.

Increased Procurement and Process-Conversion Costs for Low-CFP Products Due to Immature Technologies and Markets (Medium–Long Term)

Achieving carbon neutrality requires not only decarbonizing energy but also reducing the carbon intensity of raw materials and production processes. However, many of the relevant raw materials and production technologies are still at the technology-development or market-formation stage, and supply systems, price levels, and quality stability have not yet been sufficiently established.

Under these circumstances, switching to low-CFP raw materials or introducing new low-carbon processes may give rise to cost-increase factors, including:

•Higher raw material procurement costs
•Additional capital investment and higher operating costs associated with modifying and optimizing production processes
•Lower efficiency and costs associated with trial implementation while technologies are still being established

There is also a risk that these cost increases may not be fully reflected in product prices, given uncertainty over market evaluation of low-CFP products and the feasibility of price pass-through.

For these reasons, depending on the maturity of the relevant technologies and markets, the cost burden associated with switching raw material and fuel procurement and converting production processes may increase over the medium to long term.

Technology

2. Increased Costs from Non-Fossil Energy Conversion / Low-CFP Raw Material Procurement

Countermeasures

Exploring the Development of an Ammonia Supply Chain in the Shunan Complex

To address cost increases associated with the expanded use of non-fossil energy, it is important to establish supply chains that ensure stable fuel procurement and efficient logistics.

The Company is exploring the development of a supply chain within the Shunan Complex in Shunan City, Yamaguchi Prefecture, for receiving and utilizing biomass fuel and ammonia.

For biomass fuel, wood pellet handling facilities have already been introduced at the Port of Tokuyama, and the Company is developing an efficient fuel receiving system in response to increasing handling volume. These efforts are improving the efficiency of fuel procurement and logistics and helping reduce costs.

For ammonia, the Company had been examining the possibility of beginning co-firing by FY2030 since FY2023. However, in light of changes in previously assumed conditions, including the availability of policy support and market conditions, the Company has decided at this time not to introduce ammonia co-firing by FY2030.

Going forward, while assessing progress in technology development, institutional frameworks, and the fuel supply environment, the Company will continue to examine the feasibility of introduction in parallel with efforts to further define the supply chain, aiming to expand the use of non-fossil energy while reducing costs.

Securing Stable Procurement of Certified Biomass Fuel through Supplier Relationships and Black Pellet Development

As decarbonization progresses globally, internationally certified biomass fuel is expected to face tighter supply-demand conditions and higher prices.

The Company has used palm kernel shells (PKS) as fuel for its power generation facilities. Based on long-standing relationships with suppliers, the Company is working to secure certified fuel in response to increased use of biomass fuel. These efforts have helped secure stable procurement and reduce procurement risk.

In addition, with the aim of diversifying fuel sources and improving cost competitiveness, the Company began developing black pellets — semi-carbonized biomass — in FY2023. The Company is currently constructing a fuel-conversion pilot plant at the Tokuyama Factory and advancing technical verification toward commercialization.

Through these initiatives, the Company aims to expand the range of usable fuel types and ultimately achieve stable, low-cost procurement and commercialization of biomass fuel, while mitigating cost increases associated with the introduction of non-fossil energy.

Technology

2. Increased Costs from Non-Fossil Energy Conversion / Low-CFP Raw Material Procurement

Countermeasures

Calculating Product Carbon Footprints (CFP)

Appropriately understanding GHG emissions at the product level is a foundational initiative for decarbonizing products and enhancing the sophistication of quality management.

The Company began calculating CFP within the Cradle to Gate* scope in FY2023 and calculates emissions for each product based on internal calculation rules formulated with reference to international standards and various guidelines. This enables the Company to respond to disclosure requests from customers.

In FY2025, third-party verification was conducted for some products as part of efforts to improve the reliability of calculation results.

Going forward, in light of trends in guideline revisions and increasingly sophisticated customer requirements, the Company will continue to review its internal calculation rules, systemize the calculation process, and expand the scope of third-party verification to improve the accuracy of CFP data. This will promote the visualization of GHG emissions at the product level and facilitate consideration of low-CFP raw material selection and process improvements, while developing an information infrastructure that supports analysis of cost-increase factors and appropriate price pass-through.

*Cradle to Gate: The scope of environmental impact assessment covering the product life cycle from raw material extraction to shipment from the manufacturing plant ("gate").

Promoting the Value of Green Products

To achieve both carbon neutrality and economic growth, it is important to advance decarbonization across the entire supply chain while ensuring that low-carbon products are appropriately evaluated in the market, with their value reflected in price.

Through participation in the GX Proactive Implementation Declaration, the Company has clarified its stance of promoting GX across the entire supply chain in addition to reducing its own GHG emissions. The Company is leveraging these frameworks to promote the value of low-carbon products, or green products.

In addition, through the calculation and disclosure of CFP and communication with customers, the Company is advancing the visualization of GHG emissions at the product level and working to promote understanding of, and generate demand for, low-CFP products.

Through these initiatives, the Company aims to enhance market recognition of low-carbon products and appropriately reflect the cost increases associated with conversion to non-fossil energy and procurement of low-CFP raw materials as added value.

Reputation

3. Stakeholder Evaluation

Impact on the Group

Decline in Market Value and Increased Financing Costs Due to Perceptions of Delayed Decarbonization Initiatives (Medium–Long Term)

The Company owns coal-fired in-house power generation facilities, and if the Company's response to the transition toward decarbonization is perceived as relatively delayed, the Company may be seen as being exposed to significant climate-related risk.

Such perceptions may influence ESG assessments and investment decisions by investors, potentially leading to a decline in stock market valuation, including downward pressure on the share price.

In addition, if financial institutions or investors view the Company as high risk, financing costs may increase through worsening loan terms or constraints on access to financing.

These perceptions may also affect customers' and supply chain partners' selection of business partners, creating risks such as reduced business opportunities or changes in transaction terms.

As described above, stakeholder perceptions may affect the Group's medium- to long-term corporate value and cost structure in both capital markets and business activities.

Risk of Resident Litigation Seeking the Shutdown or Decommissioning of Coal-Fired In-House Power Generation Facilities (Medium–Long Term)

In Japan, against the backdrop of heightened public concern over coal-fired power generation, residents have filed lawsuits concerning the construction and operation of power plants, and some projects have been reviewed or discontinued as a result.

The Company owns four coal-fired in-house power generation facilities, and if its decarbonization initiatives are perceived as insufficient, local residents may file lawsuits seeking the shutdown or decommissioning of these facilities.

If such lawsuits occur, the Company may incur legal costs, face restrictions or shutdowns affecting production activities, and need to make additional investments in countermeasures.

Such litigation risk may also lead to a decline in the Company's social reputation and affect the judgments of other stakeholders, including investors and financial institutions, potentially affecting the financing environment and business activities.

As described above, changes in social acceptance of coal-fired in-house power generation facilities may affect not only legal risk but also the Group's business continuity and cost structure.

Reputation

3. Stakeholder Evaluation

Impact on the Group

Sustainability Risk of Biomass Fuel (Medium–Long Term)

For biomass fuels used by the Company, including palm kernel shells (PKS), concerns have been raised internationally regarding deforestation, impacts on ecosystems, and labor conditions in the palm oil industry, resulting in sustainability risks in procurement.

Against this background, if stakeholders perceive the Company's consideration of sustainability to be insufficient as it expands biomass fuel procurement, this could lead to a decline in corporate reputation.

In addition, as sustainability requirements become stricter and certification needs increase, constraints on procurable fuel and higher certification costs may arise, potentially contributing to higher fuel procurement costs.

Furthermore, as customers and investors increasingly emphasize the traceability and sustainability of procured raw materials, an insufficient response to these trends could result in risks such as reduced business opportunities and adverse effects on the financing environment.

As described above, sustainability issues related to biomass fuel may affect not only procurement but also the Group's reputation and cost structure.

Countermeasures

Enhancing Disclosure and Steadily Reducing GHG Emissions

For Scope 1 and Scope 2, the Group has set carbon neutrality by FY2050 as its long-term target and is working to reduce emissions, with a medium-term target of reducing GHG emissions by 30% by FY2030 compared with FY2019. For Scope 3, the Group has set a target of reducing GHG emissions by 10% by FY2030 compared with FY2022.

In addition, the Group has formulated new medium- to long-term targets for FY2035: a 60% reduction compared with FY2019 for Scope 1 and Scope 2, and a 30% reduction compared with FY2022 for Scope 3.

Based on these targets, the Group continues to calculate and disclose emissions in accordance with the GHG Protocol and appropriately manage progress in reducing emissions. In addition, through disclosure in line with the TCFD recommendations, the Group provides highly transparent information on climate-related risks and the status of its responses, while working to enhance dialogue with stakeholders.

Through these initiatives, the Group aims to promote understanding of its decarbonization policy and progress, leading to improved stakeholder evaluation and greater confidence in capital markets.

Reputation

3. Stakeholder Evaluation

Countermeasures

Dialogue with Local Communities

The Company continuously engages in dialogue with local communities to promote understanding of its business activities and build relationships of trust.

In FY2025, the Company held the Shunan Area Regional Dialogue in Shunan City, Yamaguchi Prefecture, on the theme of "Aiming for a Sustainable Environmental Society," providing an opportunity for direct dialogue with local residents. The event included explanations of environmental and decarbonization initiatives by Shunan City and participating companies, as well as a factory tour and exchange of views, helping to promote understanding of the Company's business activities and enhance two-way communication. The most recent dialogue was held on November 7, 2025.

The Company also sponsored the symposium "Carbon Neutrality of the Future, Transmitted from Shunan," hosted by the Shunan Industrial Complex Decarbonization Promotion Council, disseminating information to the local community. The symposium, held in Shunan City on March 14, 2026, included expert lectures and a panel discussion involving technical college students, fostering understanding of carbon neutrality.

Through these initiatives, the Company aims to deepen mutual understanding with stakeholders, including local residents, while securing trust and enhancing social acceptance of its decarbonization initiatives.

Transformation of the Business Portfolio

The Company has designated business portfolio transformation as a priority issue under MTMP 2025 and is working to improve capital efficiency and corporate value by concentrating management resources on growth businesses and reviewing existing businesses.

In FY2025, in the healthcare field, which is positioned as a growth area, the Company acquired an in vitro diagnostic pharmaceuticals business and a related materials business, and completed its withdrawal from unprofitable overseas businesses. In addition, in the Cement business, a traditional business, the Company implemented measures to accelerate business portfolio transformation, including deciding to transfer the domestic cement and solidification agent sales business.

Furthermore, from the perspective of management conscious of the cost of capital, the Company evaluates businesses using ROIC (Return on Invested Capital) and is advancing initiatives to improve profitability and capital efficiency, including examining the continuation of businesses whose ROIC falls below WACC. In FY2025, these initiatives produced results, including an improvement in ROIC to a level exceeding WACC.

Through these initiatives, the Company aims to improve profitability and, by enhancing capital efficiency and expectations for future growth, improve stakeholder evaluation and confidence in capital markets.

Reputation

3. Stakeholder Evaluation

Countermeasures

Procurement of Certified Biomass Fuel

As the Company expands biomass co-firing to reduce GHG emissions, it regards addressing sustainability risks as an important issue and promotes responsible procurement across the supply chain.

When procuring biomass fuel, the Company takes sustainability into consideration based on its Sustainable Procurement Guidelines. Specifically, the Company uses fuel certified to standards required under Japan's Feed-in Tariff scheme for renewable energy, thereby reducing environmental and social risks.

For palm kernel shells (PKS), the Company has used Green Gold Label-certified PKS at its in-house power generation facilities since FY2024, working to ensure sustainability at the procurement stage.

Furthermore, by diversifying procurement regions and supply chains, the Company is working to reduce sustainability risks and build a procurement system capable of responding to increasingly sophisticated certification requirements.

Through these initiatives, the Company will respond appropriately to stakeholder expectations regarding the sustainability of biomass fuel, while working to maintain and improve corporate reputation and secure stable fuel procurement.

Market

4. Changes in Customers' Emphasis on Environmental Value / Green Procurement Orientation

Impact on the Group

Exclusion from the Market Due to Products Being Assessed as High-GHG-Emission Products (Medium–Long Term)

In recent years, as rules for calculating product carbon footprints (CFP) and disclosure requirements have become more established, customers have increasingly preferred products with lower environmental impact. The Company is also receiving more requests from customers to disclose CFP and to set and manage progress toward GHG emissions reduction targets.

Against this background, if the Company's products are assessed as high-GHG-emission products, this may lead to reduced transactions or lost opportunities for new adoption because they may not conform to customers' green procurement policies. This impact is expected to be particularly significant in transactions with customers that place strong emphasis on decarbonization initiatives.

In addition, if additional measures such as switching to low-carbon raw materials or modifying production processes are required to meet customers' GHG emissions reduction targets, manufacturing costs may increase.

Furthermore, as demand increasingly shifts toward low-CFP products, a delayed response could lead to a decline in market competitiveness and loss of price competitiveness.

As described above, changes in customers' emphasis on environmental value and their orientation toward green procurement may affect both the Group's sales opportunities and cost structure.

Deterioration in Profitability Due to Inability to Appropriately Pass Through CFP Reduction Costs (Medium–Long Term)

The Company is examining fuel conversion and the introduction of green power to reduce fuel-derived GHG emissions, which is expected to increase energy procurement costs.

For these cost increases, it is important that the value of low-carbon products, or low-CFP products, be appropriately evaluated in the market and reflected in product prices. However, demand and price formation for green products remain uncertain, and it may not always be possible to fully pass these cost increases on to customers through prices.

As a result, if the additional costs associated with fuel conversion or the introduction of low-CFP raw materials cannot be reflected in product prices, product profit margins may decline, affecting profitability.

This impact is particularly likely to materialize in market environments where price competitiveness is emphasized or where willingness to pay for green value is limited.

As described above, the expansion of customers' orientation toward green procurement may affect the relationship between the Company's cost structure and price formation, thereby impacting medium- to long-term profitability.

Market

4. Changes in Customers' Emphasis on Environmental Value / Green Procurement Orientation

Impact on the Group

Lost Opportunities from Delayed Market Launch of Low-CFP Products (Medium–Long Term)

In recent years, demand for low-carbon products (low-CFP products) has been expanding among customers, with disclosure of product carbon footprint (CFP) and setting of reduction targets increasingly required. In particular, among customers who emphasize GHG emissions reduction across the entire supply chain, procurement of low-CFP products is becoming an important selection criterion.

Under this environment, if the Company's development and market launch of low-CFP products lags behind competitors, this may result in lost opportunities to win new business or reduction of existing transactions, as we fail to conform to customers' procurement requirements.

In addition, if the Company is unable to bring low-CFP products to market in a timely manner amid expanding demand, it may fail to capture sales opportunities in this growth market, resulting in lost medium- to long-term revenue expansion opportunities.

Furthermore, as companies that launch low-carbon products early establish competitive advantage, a delayed response may lead to a decline in market competitiveness and weaker customer acceptance.

As described above, changes in customers' emphasis on environmental value and green procurement orientation may affect the Group's sales opportunities and competitiveness through the timing of low-CFP product market launches.

Market

4. Changes in Customers' Emphasis on Environmental Value / Green Procurement Orientation

Countermeasures

Steadily Reducing GHG Emissions through Energy Savings, Fuel Conversion, and Other Measures

For the Company's products to continue to be selected by customers and remain competitive in the market, the Company must steadily achieve its GHG emissions reduction targets. The Company will first strengthen energy-saving activities to minimize energy loss, and will then steadily reduce fuel-derived GHG emissions through fuel conversion and other measures.

As short-term initiatives, the Company has promoted energy-saving activities across its manufacturing departments and reduced coal consumption through biomass and hydrogen co-firing at power generation facilities.

•Polycrystalline silicon: Reduced power consumption through improvements to the production process

•Cement: Reduced power consumption through advanced control of cement finish grinding mills

As a major investment contributing to carbon neutrality, the Company plans to invest approximately ¥14.3 billion over the three years from FY2026 to FY2028.

Examining the Acquisition of Mass Balance Certification

To respond to customers' growing orientation toward green procurement, it is important to advance decarbonization at the product level by lowering CFP. On the other hand, for electricity and steam derived from in-house power generation, which fall under Scope 1, the use of offset certificates is not permitted. Accordingly, lowering CFP for products manufactured at the Tokuyama Factory requires greening the energy used across the entire plant, which presents cost and operational constraints.

To address this challenge, the Company is examining a mechanism for allocating environmental value to specific products — for example, the emissions reductions achieved through the use of low-carbon electricity and steam generated from biomass fuel.

This would make it possible to lower CFP at the product level without greening the energy used across the entire manufacturing process, enabling the Company to respond to customer needs for low-carbon products while aiming to bring green products to market in a cost-efficient manner.

Going forward, while considering consistency with system trends and industry guidelines, the Company will continue to refine the methodology and examine its applicability, advancing initiatives toward the timely market launch of low-CFP products.

Market

4. Changes in Customers' Emphasis on Environmental Value / Green Procurement Orientation

Countermeasures

Strengthening Supply Chain Collaboration to Form a Green Market

While reducing GHG emissions is required of directly emitting businesses, we recognize that the associated cost should not be confined to individual companies, but should be appropriately borne across the entire supply chain and society as a whole. For this reason, the Company is working to strengthen collaboration across the entire supply chain to develop an environment in which the value of green products is appropriately evaluated in the market.

Specifically, we are utilizing the framework of the GX Future Consortium, advancing efforts to help form a green market through participation in inter-company emissions reduction initiatives and rule formation. In FY2025, we declared Silver Grade under the "GX Proactive Implementation Declaration" established by the Ministry of Economy, Trade and Industry, clarifying our policy of contributing to GX promotion across the entire supply chain in addition to reducing our own GHG emissions.

In addition, as part of strengthening collaboration with suppliers, we conducted a questionnaire survey on carbon neutrality to better understand the status of initiatives at each company. Through this survey, we achieved shared recognition of challenges toward emissions reduction across the entire supply chain and laid the foundation for future collaboration.

Furthermore, through dialogue with customers, we are advancing understanding of needs and willingness to pay for low-carbon products, promoting initiatives toward forming a market environment in which the value of green products is appropriately evaluated.

Through these initiatives, we have been selected as "Supplier Engagement Leader," the highest rating in CDP's Supplier Engagement Assessment (SEA), for two consecutive years.

We will continue to work toward realizing appropriate cost-sharing and price pass-through across the entire supply chain for costs associated with conversion to non-fossil energy and procurement of low-CFP raw materials.

Building a CFP (Product Carbon Footprint) Evaluation System

To advance decarbonization of products, it is important to appropriately understand GHG emissions across the entire life cycle, including visualization of the calculation methodology.

The Company has established internal calculation rules based on published international standards and various guidelines for calculating GHG emissions within the Cradle to Gate scope, and has built a system capable of conducting CFP calculation at the product level.

In FY2025, third-party verification was conducted for some products as part of efforts to improve the reliability of calculation results.

Going forward, with the aim of improving the efficiency and precision of calculation work, we will advance the systematization of CFP calculation and expand the scope of third-party verification. This will strengthen our ability to respond to disclosure requests from customers, while developing a foundation contributing to the provision of low-CFP products and the appropriate communication of their environmental value.

Market

5. Lost Opportunities from Failure to Keep Pace with the Transition to a Decarbonized Society

Impact on the Group

Lost Opportunities from Delays in Building a Green Supply Chain (Medium–Long Term)

With the progress of carbon neutrality in recent years, companies are increasingly building green supply chains based on low-carbon energy and low-CFP raw materials, and product supply systems premised on these are becoming a factor determining corporate competitiveness.

The Company is advancing initiatives to strengthen its competitiveness as a manufacturing base through the construction of a large-scale green supply chain in the Shunan Complex.

However, if progress on these initiatives is delayed, we may be slow to secure the supply capability of low-carbon products, making it difficult to respond to customer needs, and we may miss opportunities to enter the decarbonization market.

In addition, if we fail to secure a relative advantage in competition with other companies that are advancing similar initiatives ahead of us, this carries the risk of lost new order opportunities and declining market share in growth fields.

Furthermore, amid advancing location competition premised on green supply chains, if the conversion of the energy structure across our sites as a whole is delayed, the competitiveness of our manufacturing sites may decline, potentially affecting medium- to long-term revenue opportunities.

As described above, progress in building green supply chains is an important element directly linked to the Group's market entry opportunities and maintaining/strengthening site competitiveness, and delays may lead to lost medium- to long-term growth opportunities.

Lost Opportunities from Delayed Entry into the Circular Economy and Carbon Recycling Fields (Medium–Long Term)

With the progress of carbon neutrality, the importance of carbon recycling — utilizing emitted CO_2 as a resource — and the circular economy — achieving resource circulation through recycling of waste — is increasing, and expansion of new markets based on these is expected.

The Company is also advancing technology development and consideration of commercialization in these fields; however, if the timing of development or market entry is delayed, we may miss business opportunities in fields expected to grow.

In addition, as companies that lead in providing carbon recycling and resource-circulating products establish competitive advantage, a delayed response on our part carries the risk of lost order opportunities in new markets and declining market share.

Furthermore, amid growing demands from customers and regulators regarding resource circulation and CO_2 utilization, if we fail to offer corresponding products and technology, this may lead to declining competitiveness in existing businesses and reduced trading opportunities.

As described above, delays in responding to the circular economy and carbon recycling fields may constrain entry opportunities into future growth markets, affecting the Group's medium- to long-term revenue opportunities and competitiveness.

Market

5. Lost Opportunities from Failure to Keep Pace with the Transition to a Decarbonized Society

Countermeasures

Steady Advancement of Measures

To respond to the transition to a decarbonized society and reliably capture business opportunities, it is important to comprehensively advance various measures, including introducing low-carbon energy, calculating and disclosing CFP, building a supply system for low-CFP products, strengthening supply chain collaboration, and realizing a resource-circulating business.

The Company is implementing the countermeasures organized in this chapter (pp.8–22) in a planned manner, linked with investment decisions and business strategy, while managing progress and making revisions as necessary. In FY2025, in addition to:

•Implementing capital investment toward introducing and expanding biomass co-firing
•Examining the construction of a CFP calculation system and implementing third-party verification for some products
•Declaring Silver Grade under the GX Proactive Implementation Declaration
•Conducting a supplier survey to strengthen supply chain collaboration

we also participated in a demonstration of upcycling technology to reuse glass derived from photovoltaic (PV) panels as building materials or furniture components without crushing it, as part of our initiatives toward realizing a circular economy. This initiative demonstrates the potential to recover high-quality flat glass from used PV panels and reuse it as-is, reducing waste while cutting CO_2 emissions by up to 50% compared with manufacturing new glass.

Going forward, toward the social implementation of this technology, we will consider building a supply chain and business model in collaboration with the building materials and furniture industries, and advance the development of a resource-circulating business. We will continue to steadily advance these measures without delay, responding flexibly to changes in technology trends, institutional environment, and customer needs, to build a business foundation capable of responding to the transition to a decarbonized society.

Physical Risk (Acute)

6. Intensification of Extreme Weather / Sea Level Rise

Impact on the Group

Delays in Production Plans and Cost Increases Due to Flood Damage to Production Facilities and Supply Chain Disruption from Wind and Flood Damage (Long Term)

The Company's Tokuyama Factory is located in a coastal industrial complex in Shunan City, Yamaguchi Prefecture, and the intensification of extreme weather (heavy rain, lightning, typhoons, etc.) accompanying the progress of climate change may increase the risk of wind and flood damage. As a result, if production facilities are damaged by flooding caused by storm surge or heavy rain, there is a risk of operational shutdown or delays in production plans.

In the past, while there have been no cases of long-term operational shutdown due to major typhoons, there have been instances of flooding and damage to some facilities. In addition, in the 2018 torrential rain, sediment damage to the JR Sanyo Main Line halted rail transport, forcing a switch to truck transport as an alternative, resulting in an increase in transport costs of approximately ¥52 million — an example of cost increases associated with supply chain disruption.

The Center for Commercialization of Advanced Technology in Yanai City, Yamaguchi Prefecture, and the Kashima Factory in Kamisu City, Ibaraki Prefecture, have not experienced specific damage of the kind seen at the Tokuyama Factory; however, similar risks may be considered for production facilities and the supply chain.

In addition, as the Company depends heavily on maritime transport for much of its raw materials and products, delays or suspension of transport due to frequent severe weather or worsening sea conditions may affect production activities and sales through disruption of raw material procurement and product shipment.

As described above, the intensification of extreme weather may affect the Group's operational stability and cost structure through direct damage to production facilities as well as disruption of logistics networks and increased transport costs.

Physical Risk (Acute)

6. Intensification of Extreme Weather / Sea Level Rise

Countermeasures

Expanding BCP (Business Continuity Plan) Response

To respond to the risk of plant operational shutdown due to natural disasters, the Company is advancing infrastructure reinforcement and the sophistication of risk assessment at the Tokuyama Factory.

As a storm surge countermeasure, in light of the significant impact during typhoons, we implemented seawall development from FY2000 to FY2016. Specifically, considering wave heights with return periods of 15 and 30 years, we raised the height of the seawall from C.D.L.*+4.7m to C.D.L.+5.5m, at a cost of approximately ¥300 million.

In addition, in light of the increasing risk from climate change in recent years, in FY2022 we conducted a sensitivity analysis of the impact of high waves during typhoon landfall, taking into account the typhoon's path and scale. Furthermore, based on the protection standards set from this analysis, in FY2023 we conducted a comprehensive simulation assessment including the impact of in-plant flooding from rainfall in addition to storm surge (wave overtopping, backflow), identifying the range of anticipated impact.

Going forward, based on these analysis results, we will proceed with the consideration and implementation of specific measures such as flood prevention measures and equipment protection measures, strengthening resilience to extreme weather and ensuring operational continuity. We will also consider extending the findings and measures examined and implemented at the Tokuyama Factory to the Center for Commercialization of Advanced Technology, aiming to minimize the risk of operational shutdown.

*C.D.L. (Chart Datum Level): An indicator of height from the reference water depth surface set for each port.

Physical Risk (Chronic)

7. Long-Term Intensification of Extreme Weather / Sea Level Rise

Impact on the Group

Decreased Production Capacity Due to Insufficient Plant Cooling Capacity from Rising Average Temperatures (Long Term)

The Company's Tokuyama Factory is located in a coastal industrial complex in Shunan City, Yamaguchi Prefecture, and has manufacturing facilities that produce a diverse range of chemical products. These manufacturing facilities require cooling by circulating water to maintain stable process operation, with water heated in the manufacturing process cooled by evaporative heat in cooling towers before being reused.

However, as climate change drives up average air temperature and seawater/river water temperature, the temperature of cooling water may rise, potentially reducing cooling efficiency. As a result, if the cooling capacity assumed in the equipment design cannot be sufficiently secured, constraints may arise in operating conditions, forcing a reduction in operational load and production volume.

In addition, where additional cooling equipment or changes to operating conditions become necessary to address the decline in cooling capacity, this may contribute to higher manufacturing costs through increased energy usage and capital investment.

Furthermore, if the long-term trend of rising temperatures continues, it may become necessary to reconsider the optimal design of production processes or the equipment capacity itself, potentially leading to increased medium- to long-term capital investment burden and declining production efficiency.

As described above, the decline in cooling capacity accompanying rising average temperatures may affect the Group's revenue opportunities and cost structure through operational constraints, additional costs, and declining production capacity.

Operational Shutdown Due to Storm Surge from Sea Level Rise (Long Term)

The Company's Tokuyama Factory is located in a coastal industrial complex, and sea level rise accompanying climate change may increase the risk of flooding during storm surge over the medium to long term.

If storm surge or flooding of a scale not previously anticipated occurs due to rising sea levels, manufacturing facilities may be affected, leading to operational shutdown or delays in production plans. In addition, as the frequency and scope of impact of storm surges are expected to expand with the progress of climate change, there is concern that the likelihood of this risk materializing will increase.

According to the Company's own estimates, if a single production plant at the Tokuyama Factory were to shut down for approximately 10 days, this could result in a loss of opportunity of approximately ¥300 million. Furthermore, if multiple facilities are affected, the impact on operations may be prolonged, and losses may expand through additional recovery costs and alternative response costs.

As described above, the increased risk of storm surge from sea level rise may affect the Group's revenue and cost structure through lost sales opportunities from production shutdown, as well as increased recovery costs and countermeasure investment.

Physical Risk (Chronic)

7. Long-Term Intensification of Extreme Weather / Sea Level Rise

Countermeasures

Maintaining Capacity through Equipment Modification

To address the decline in cooling capacity accompanying rising average temperature and water temperature, it is necessary to strengthen the capacity of cooling equipment.

Specifically, we will maintain and improve cooling capacity by expanding the evaporation area of cooling towers, improving the capacity of circulation pumps, and redesigning piping.

Implementing these measures is expected to require investment on the scale of several hundred million yen or more for equipment modification; however, the objective is to maintain the stable operation of production facilities by securing cooling capacity, and to prevent long-term declines in production capacity and the associated loss of revenue opportunities.

Going forward, in light of the progress of climate change and changes in operating conditions, we will implement capital investment in phases as necessary while identifying priorities, securing operational continuity and minimizing cost impact.

Table 5 shows climate change opportunities.

Table 5: Climate Change Opportunities (Scenario Analysis)

Scenario	Opportunity Type	Opportunity Assessment Target	Impact on Tokuyama Group	Impact Level	Term	Priority Level	Countermeasures
1.5℃	Market	1. Expanding demand in the environmental industry	● Expansion of businesses offering waste disposal, effective utilization of resources, and measures to combat global warming	Large	Medium to long term	High	● Commercialization of renewable resources and energy
		2. Shift to carbon neutrality by regions and industrial complexes	● Enhancing site competitiveness by promoting large-scale green supply chains for energy materials	Large	Medium to long term	High	● Green supply chain construction conducted and promoting green technology development through the Shunan Industrial Complex Decarbonization Promotion Council
	Resource use efficiency	3. Demand for products and services to promote carbon utilization	● Entering new business fields by establishing a carbon recycling system	Large	Medium to long term	High	● Accelerating research and development, feasibility studies, and demonstration experiments, along with implementation in actual operations

*Short term: through FY2026, Medium term: through FY2035, Long term: through FY2050

Market

1. Expanding Demand in the Environmental Industry

Impact on the Group

Expansion of the Waste Treatment, Resource Utilization Industry and Global Warming Countermeasure Industry

Against the background of rising environmental awareness and the need to respond to resource procurement risk arising from geopolitical factors, expansion is expected in circular economy-related industries centered on recycling of waste and resource circulation.

In addition, while the introduction of renewable energy is progressing, manufacturing industries that require high-temperature heat sources are being called upon to achieve carbon neutrality of thermal energy (biomass, ammonia, hydrogen, etc.), and an expansion of the global warming countermeasure industry is anticipated.

These trends are expected to lead to expanded demand in the Company's waste treatment, resource utilization business and low-carbon energy-related field, becoming a factor in the creation of new business opportunities; at the same time, additional cost burdens related to technology development, capital investment, and procurement of low-carbon raw / fuel materials may arise.

In addition, as market expansion progresses, if customers and business partners come to require a higher level of environmental performance and decarbonization response as a condition for trading, continuous investment and increased operating costs to respond to this may become necessary.

As described above, while the expansion of environment-related industries represents a growth opportunity for the Group, it may also entail increased costs associated with responding to these changes, as well as a continuous investment burden to maintain competitiveness.

Market

1. Expanding Demand in the Environmental Industry

Countermeasures

Commercialization of Renewable Resources and Energy

As a measure to reduce coal usage, the Company is expanding biomass co-firing, while also examining the development and commercialization of new fuels with the aim of achieving stable procurement and reducing costs for biomass fuel.

Specifically, we are advancing the development of black pellets (BP), a new fuel expected to overcome the challenges of existing biomass fuel (supply constraints and quality/cost issues); we have already constructed a pilot plant and are currently conducting testing.

In addition, as part of our response to the transition to a circular society, we are engaged in businesses that recycle waste into resources. In our waste gypsum board recycling business, we use recrystallization technology that turns waste gypsum into high-purity raw material, enabling horizontal recycling back into gypsum board. Through this business, we are working to reduce waste and promote the effective use of resources.

Furthermore, regarding recycling technology development for used PV panels, we are advancing technology development adopted as a NEDO project, and in March 2024 succeeded in demonstrating the recycling of separated and recovered glass into float plate glass. We are currently advancing demonstration of horizontal recycling of glass and cells, while working on technology sophistication aiming for a resource recovery rate of 98% or more.

In addition, in FY2025, we also participated in an upcycling demonstration for glass derived from PV panels, considering a new resource-circulating model that reuses recovered plate glass for building materials and furniture without crushing it.

We are also advancing the commercialization of magnesium hydride (MgH_2) at the Tokuyama Factory. Magnesium hydride has a high hydrogen density and can be handled stably at room temperature and pressure, making it a promising hydrogen carrier that contributes to reducing hydrogen storage and transport costs. Through participation in the Sapporo City Hydrogen and Renewable Energy Promotion Council and the establishment of H2 Hokkaido, we are promoting the development of hydrogen utilization equipment and the construction of a hydrogen supply chain, contributing to the utilization of renewable energy and achievement of carbon neutrality in Hokkaido.

Going forward, through these initiatives, we will continue to strengthen our capture of business opportunities and strengthen our business platform in the resource circulation and low-carbon energy fields.

Market

2. Carbon Neutralization at the Region and Industrial Complex

Impact on the Group

Strengthening Site Competitiveness through Promotion of Large-Scale Green Supply Chains for Energy and Materials

Achieving carbon neutrality requires decarbonizing energy and raw materials, and if a single company attempts to complete this alone, a significant burden may arise from securing new energy and low-carbon raw materials and developing infrastructure.

On the other hand, by treating these challenges as a region-wide initiative and promoting carbon neutralization at the industrial-complex level, it becomes possible to build a large-scale green supply chain including energy supply and raw material procurement, and efficient decarbonization is expected to progress.

For the Company as well, advancing energy conversion using ammonia and other means in the Shunan Complex in Shunan City, Yamaguchi Prefecture, and working toward decarbonizing resources and raw materials, may strengthen the competitiveness of its manufacturing sites.

However, if supply chain development through such regional collaboration falls behind that of other regions and industrial complexes, the Company may be placed at a disadvantage in accessing low-carbon energy and raw materials, which could result in higher manufacturing costs or supply constraints.

In addition, amid advancing location competition premised on green supply chains, if our sites are slow to respond, we may fall into a competitively inferior position in customer selection, carrying the risk of losing opportunities for new investment and business development.

As described above, progress in carbon neutralization at the region and industrial-complex level may become an important factor affecting the Group's manufacturing cost structure, site competitiveness, and ability to secure business opportunities.

Market

2. Carbon Neutralization at the Region and Industrial Complex

Countermeasures

Building a Green Supply Chain and Actively Participating in and Promoting Technology Development through the Shunan Industrial Complex Decarbonization Promotion Council

To both maintain and strengthen the industrial competitiveness of the Shunan Complex while achieving carbon neutrality, in February 2022 the Company established the "Shunan Industrial Complex Decarbonization Promotion Council" together with Shunan City in Yamaguchi Prefecture, the Society of Chemical Engineers, Japan, and five industrial complex companies, promoting region-wide decarbonization initiatives.

Within this Council, in May 2023 we formulated and published a grand design showing the future vision of the Shunan Complex, along with a backcasting roadmap, clarifying the direction for energy conversion and decarbonization of raw materials. Currently, subcommittees established within the Council are advancing specific examination of themes such as the introduction of next-generation energy and resource circulation.

In addition, five industrial complex companies including the Company held prior consultations with the Japan Fair Trade Commission regarding joint actions related to carbon neutrality, and in February 2024 received confirmation that, except in cases falling under competition-restricting conduct related to sales prices, such actions would not present a problem under the Antimonopoly Act. This arrangement has established the institutional premise for advancing coordinated initiatives across the entire industrial complex.

Utilizing these frameworks, we will accelerate examination toward positioning the Shunan Complex as a carbon-free ammonia supply base, while promoting the construction of a region-wide green supply chain and technology development, aiming to realize a carbon-neutral industrial complex.

Resource Efficiency

3. Demand for CCU-Related Products and Services

Impact on the Group

Entry into New Business Fields through Establishment of a Carbon Recycling System

With the introduction of carbon pricing, an environment is emerging in which cost is attached to CO_2 emissions, while value is being attached to carbon itself. Amid this, carbon recycling — which reuses emitted CO_2 as a resource — is positioned as an important technology for responding to constraints on carbon resources.

For manufacturers like the Company, whose operations generate CO_2 emissions, using emitted CO_2 as a new raw material could turn what has until now been treated as waste into value-added resources, potentially leading to the creation of new products and businesses.

On the other hand, establishing CCU technology requires technology development for separation and recovery, refining, and resource recycling, together with the related capital investment, and thus involves the risk of increased R&D expenses as well as uncertainty until commercialization.

In addition, as the shift progresses from fossil resource-derived raw materials to recycled carbon, the timing at which companies can capture business opportunities may vary depending on their progress in technology development and their position relative to competitors in a still-forming market.

The Company has a track record of effective utilization of by-products, such as using by-products from soda ash manufacturing as cement raw materials, and it is important to leverage these strengths in expanding into the carbon recycling field.

As described above, while the CCU-related field may lead to the creation of new revenue opportunities, it also involves risk associated with technology development and investment burden as well as uncertainty in market formation, which may affect the Group's medium- to long-term business structure and cost structure.

Resource Efficiency

3. Demand for CCU-Related Products and Services

Countermeasures

Advancing R&D and Demonstration Experiments to Accelerate Implementation into Real Business

The Company is advancing technology development and demonstration testing, examining the path to social implementation, toward creating new business opportunities in the carbon recycling field.

In the Shunan Complex, the Company conducted a NEDO-commissioned project, "Survey toward Implementation of a Carbon Recycling Business through Inter-Industry Collaboration," in collaboration with multiple other companies, completing the project in FY2025 and compiling the results. This survey examined the feasibility of a business model that integrally manages the recovery, aggregation, and utilization (CCU) as well as storage (CCS) of CO_2 within the industrial complex, and organized the necessary equipment and costs.

Through these initiatives, we have verified the possibility of circular carbon production that uses recovered CO_2 as a raw material to manufacture chemical products and other materials, while organizing the technical and economic challenges toward commercialization (capital investment, cost competitiveness, energy supply, etc.).

Going forward, based on the knowledge gained from this survey, we will advance phased demonstration and commercialization examination in cooperation with relevant companies and government, promoting the implementation of carbon recycling-related businesses.

b. Impact on Business, Strategy, and Financial Planning

Building on the analysis of opportunities arising from climate change, we further elaborated our examination of new "business opportunities" in the environmental field, evaluating the time horizon, degree of financial impact, and priority of each.

Table 6: Consideration of Business Opportunities from Climate Change

	Future Events	Business Opportunities	Products and Technology	Term	Financial Impact	Priority Level
1.5℃ scenario	Widespread adoption of low-carbon hydrogen	● Sudden increase in demand for water electrolysis equipment ● Expansion of hydrogen demand and distribution	● Water electrolysis equipment ● Expansion of sodium chloride electrolysis equipment ● Hydrogen carrier (magnesium hydride)	Medium to long term	Moderate	High
	Expansion of electrification of mobility	● Expansion of demand for lithium batteries ● Expansion of demand for thermal management materials	● Ion exchange membranes ● Thermal management materials	Short to Medium term	Moderate	High
	Rapid digitalization	● Expansion of semiconductor demand	● Polycrystalline silicon ● Photoresist developer ● Silica for CMP ● High-purity IPA ● Thermal management materials, etc.	Short term	Large	High
	Formation of a closed-loop society	● Increase in demand for recycling of waste material and industrial waste	● Waste gypsum board recycling technology ● Ion exchange membranes ● Effective use of biomass combustion ash (CCUS) ● Development of carbon negative concrete	Short term	Minimal	Moderate
		● Response to large quantities of waste from photovoltaics panels	● Recycling technology for photovoltaics modules	Medium term	Minimal to moderate	Moderate

Short term: through FY2026, Medium term: through FY2035, Long term: through FY2050

FY2025 Initiatives and Specific Progress **Business opportunities** See pages P.51, P.53, P.54, P.55

Risk Management

The Group defines "significant risks" as events and factors that affect the achievement of expected organizational goals and the sustainability of the business, and that could lead to the impairment or enhancement of corporate value in corporate management, requiring a cross-organizational response; we have built a management system to reliably address these. From a sustainability perspective, we examine and manage not only risks but also opportunities.

a. Risk Identification and Assessment Process

As a chemical materials manufacturer, the Company has centered its business on producing chemical products from natural capital using low-cost energy. For example, the Tokuyama Factory, our main plant, has driven earnings through an energy-intensive business model reliant on integrated, highly efficient production processes and coal-fired in-house power generation facilities as a source of competitiveness. However, the pace of change in the industrial structure toward decarbonization is accelerating, and heightened environmental awareness and stricter regulation toward realizing a circular society are expected to continue — changes in the business environment that can no longer be overlooked. Accordingly, MTMP 2025 (Figure 3) designated business portfolio transformation and helping to fight global warming as priority issues. The Risk and Compliance Committee, which was responsible for risk management at the time, positioned climate change-related risk — "risk of responding to the decarbonized society" — as the most significant risk, establishing a structure in which multiple expert committees collaborate to address regulatory compliance related to the environment, as well as soft-law responses related to climate change initiatives and external disclosure.

FBP 2030, disclosed in May 2026, carries forward this stance, designating "Take responsibility for and address issues related to global environment" as one of the materiality items and advocating the reduction of GHG emissions. We continue to list "risk of responding to the decarbonized society" as one of our significant risks, recognizing its importance on our risk mapping as well (see b. Integration into Company-Wide Risk Management for details).

To examine climate change-related risk in detail, as shown in Figure 5, we have established a cross-organizational Carbon Neutral Working Group under the Environment Committee. The Carbon Neutral Working Group includes departments with specialized knowledge, such as the Carbon Neutral Strategy Division and Corporate Sustainability Division. In FY2025, the Environment Committee met once, and the Carbon Neutral Working Group met six times.

The scenarios used by the Working Group for risk examination, and the results of that examination, are detailed in "Strategy" (p.7). Information related to regulation and stakeholder evaluation is compiled by the Corporate Sustainability Division. Information on policy and technology related to carbon neutrality is collected by the Carbon Neutral Strategy Division. Other information related to markets and customers is collected through business divisions. Responses to risks are implemented as measures by each department under the direction of the Environment Committee, and the Environment Committee compiles progress status and reports it to the Sustainability Executive Committee. Please refer to "Metrics and Targets" for specific contents.

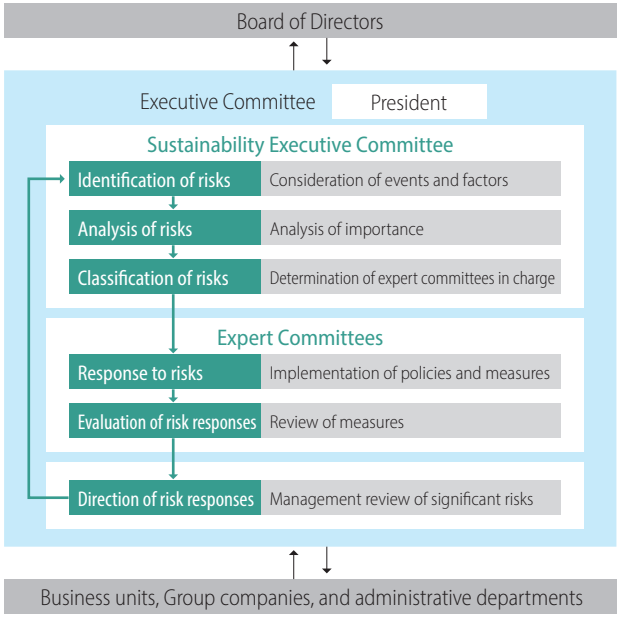
b. Integration into Company-Wide Risk Management

Company-Wide Risk Management

Company-wide risk management, including risks related to sustainability, has been carried out by the Sustainability Executive Committee since April 2025. All executive officers, including the President and Executive Officer, attend the Sustainability Executive Committee, and Audit and Supervisory Committee members, including external directors, may also attend. Risks and opportunities related to sustainability, including significant risks, are discussed at the Sustainability Executive Committee, which directs business divisions and delegates to subordinate expert committees for response.

Figure 7 shows the process for identifying significant risks. At the Sustainability Executive Committee, we review the positioning of currently recognized significant risks from the perspective of frequency / likelihood of occurrence and scale of damage / impact, and discuss items that should be newly added.

Figure 7: Process for Identifying Significant Risks



The list of significant risks confirmed in March 2026 is shown in Table 7, and the mapping of these risks from the perspective of scale of damage / impact and frequency / likelihood of occurrence is shown in Figure 8 (p.39).

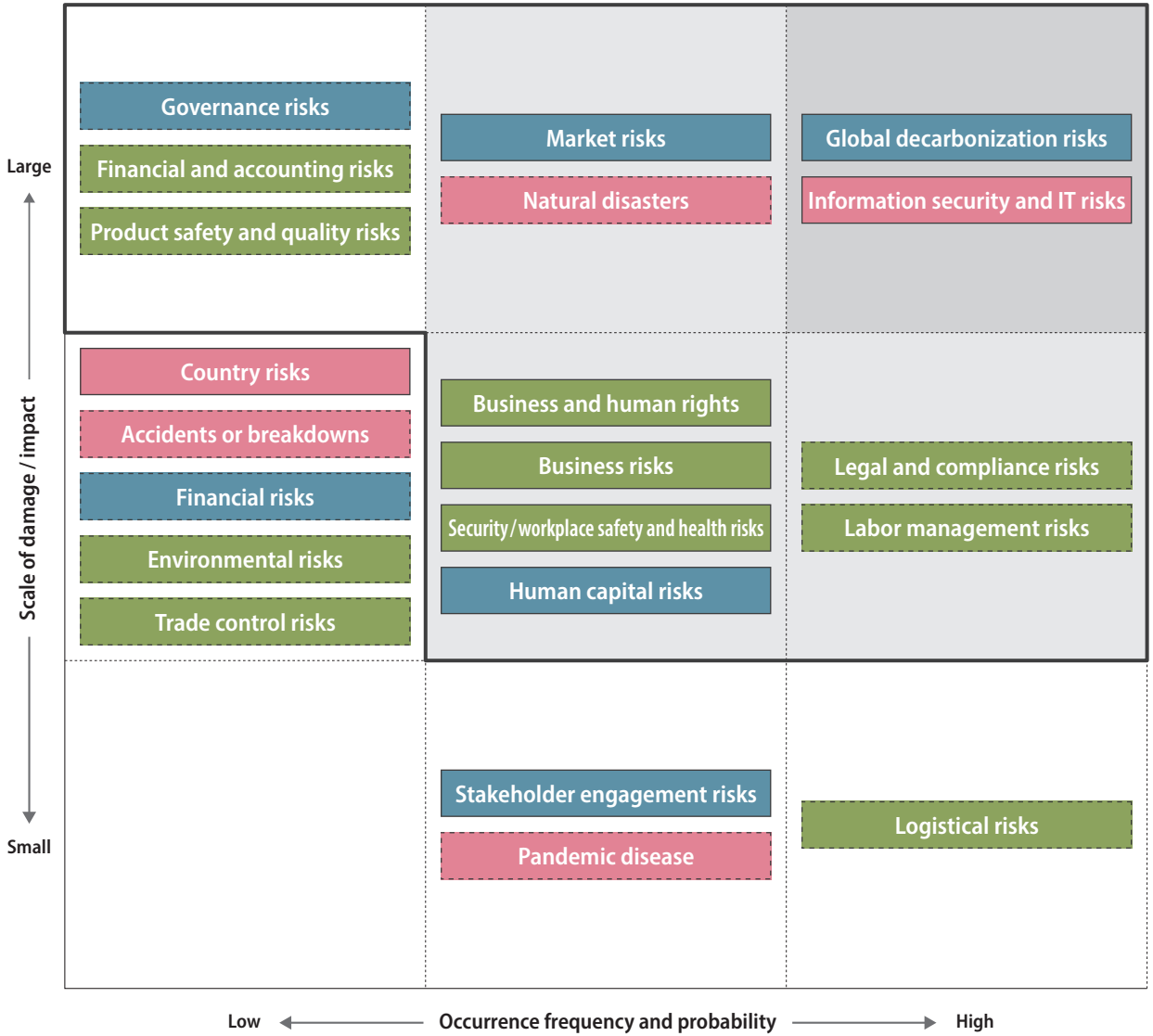
Table 7: List of Significant Risks (FY2026)

* The chairperson of each committee is a director who is responsible for the relevant risks

Major Category	Category	Subcategory	Relevant committee *
Hazard risk (external environment risk) Risks posed by the external environment and potential events	Natural disasters	Earthquake, tsunami, weather-related disaster, abnormal weather event (typhoon, storm surge, heavy rains, etc.)	Sustainability Executive Committee
	Accidents or breakdowns	Fire, explosion, chemical leak, equipment or device damage or failure, utility supply interruption, accident with aircraft, ship, railway, or automobile	Safety Committee Sustainability Executive Committee
	Infectious diseases and pandemics	Widespread outbreak of COVID-19 or another pandemic infectious disease	Sustainability Executive Committee
	Country risks	War, conflict, terrorism incident, riot, unlawful political change, or economic crisis	Sustainability Executive Committee
	Information security and IT risks	Cyberattack, virus infection, information leaks, system failure, failure of system facilities/equipment, IT risks	Information Security Committee
Business risk (strategic risk) Risks posed by the quality and accuracy of corporate strategies that affect performance and corporate value	Global decarbonization risks	Carbon pricing and increased energy procurement costs, increased costs arising from the transition to non-fossil energy and procurement of raw materials with a low carbon footprint, shift in customer preferences toward environmental value and green procurement, evaluation by stakeholders, and lost opportunities due to a failure to keep pace with the transition to a decarbonized society	Sustainability Executive Committee Environment Committee
	Market risks	Changes in market needs, marketing failures or deficiencies, emergence of new competitors, product development failures or obsolescence, delays in responding to rapid technological innovations, and delays or barriers to overseas expansion, low PBR risks	(Executive Committee)
	Human capital risks	Excessive outflow of human resources and difficulties in securing human resources, workforce aging and distorted human resource pyramid, human resource development and technology transfer, delays in adapting to new work styles, human resource mismatch due to business transitions, and inadequate and delayed disclosure of human capital information	(Executive Committee)
	Governance risks	Lack of succession planning, securing governance transparency, and inadequate control over reporting lines	(Executive Committee)
	Financial risks	Funding plan or financing failure, paid capital increase, suspension of financial support, interest rate or foreign exchange rate fluctuation risk, and stock price decline	(Executive Committee)
	Stakeholders response risks	Criticism and slander by the media, reputational damage, social media risks, inappropriate information disclosure, damage to corporate values by activists	(Executive Committee)
Operational risk (business process risk) Risks arising from deficiencies in internal processes related to business execution, or from inadequate functions	Security/workplace safety and health risks	Equipment or machine stoppages or accidents due to operating errors, industrial accidents, and aging equipment or machinery	Safety Committee
	Business risks	Soaring prices and procurement difficulties for raw materials, fuels, or other commodities, failed pricing policies, declining price competitiveness, dependence on a small number of suppliers, and dependence on a small number of customers	(Executive Committee)
	Product safety and quality risks	Poor quality, voluntary recalls, product liability accidents due to design defects, manufacturing defects, improper labeling, or false labeling, violations of domestic and international laws	Product Safety and Quality Assurance Committee
	Logistics risks	Damage and accidents during transportation and storage (including leakage of hazardous materials), complaints and anomalies related to logistics quality control (such as incorrect deliveries and deterioration in quality during logistics)	Safety Committee Product Safety and Quality Assurance Committee
	Environmental risks	Release of hazardous pollutants, contamination of soil and groundwater, complaints from local residents regarding noise and odors, illegal dumping and improper disposal of waste, water risks, and loss of biodiversity	Environment Committee
	Trade control risks	Inadequate security trade control, inadequate import control	Security Trade Committee
	Business and human rights	Human rights violations in supply chains (forced labor, child labor, responsible procurement of minerals, and other such issues), boycotts, and consumer movements	Compliance Committee
	Financial and accounting risks	Window dressing, improper accounting, tax compliance, bad debts and defaults	Financial Reporting Committee
	Legal and compliance risks	Intellectual property rights infringement and violation, invention compensation disputes, antimonopoly law violation, improper provision or receipt of benefits, conflicts of interest, improper contract signing, insider trading, inadequate management of licenses and permits, misconduct involving executives or employees, ties to antisocial forces, and intimidation	Fair Trade and Competition Committee Compliance Committee
	Labor management risks	Death from overwork, long working hours, illegal overtime, labor disputes and strikes, human rights issues, discrimination, harassment, mental health, ensuring the safety of expatriates and business travelers overseas	Compliance Committee

Note: Not all risks in the Group are covered, and there may be risks that could affect business activities in addition to those listed.

Figure 8: Mapping of significant risks (FY2026)



Definitions of major risk categories

- **Hazard risk (External environment risk)** — Risks posed by the external environment and potential events
- **Business risk (Strategic risk)** — Risks posed by the quality and accuracy of corporate strategies that affect performance and corporate value
- **Operational risk (Business process risk)** — Risks arising from deficiencies in internal processes related to business execution, or from inadequate functions

Definition of scale of damage and impact

Large ↑	Damage that threatens the survival of the company, as well as substantial damage such as loss of assets
Moderate	Significant decrease of profits, or minor loss of assets
Small ↓	Little impact on corporate profits and assets

Definition of occurrence frequency and probability

High →	Occurs more than once a year Will almost certainly occur in the near future
Moderate	Occurs several times a decade
Low ←	Occurs once every decade or more

Definition of vulnerability

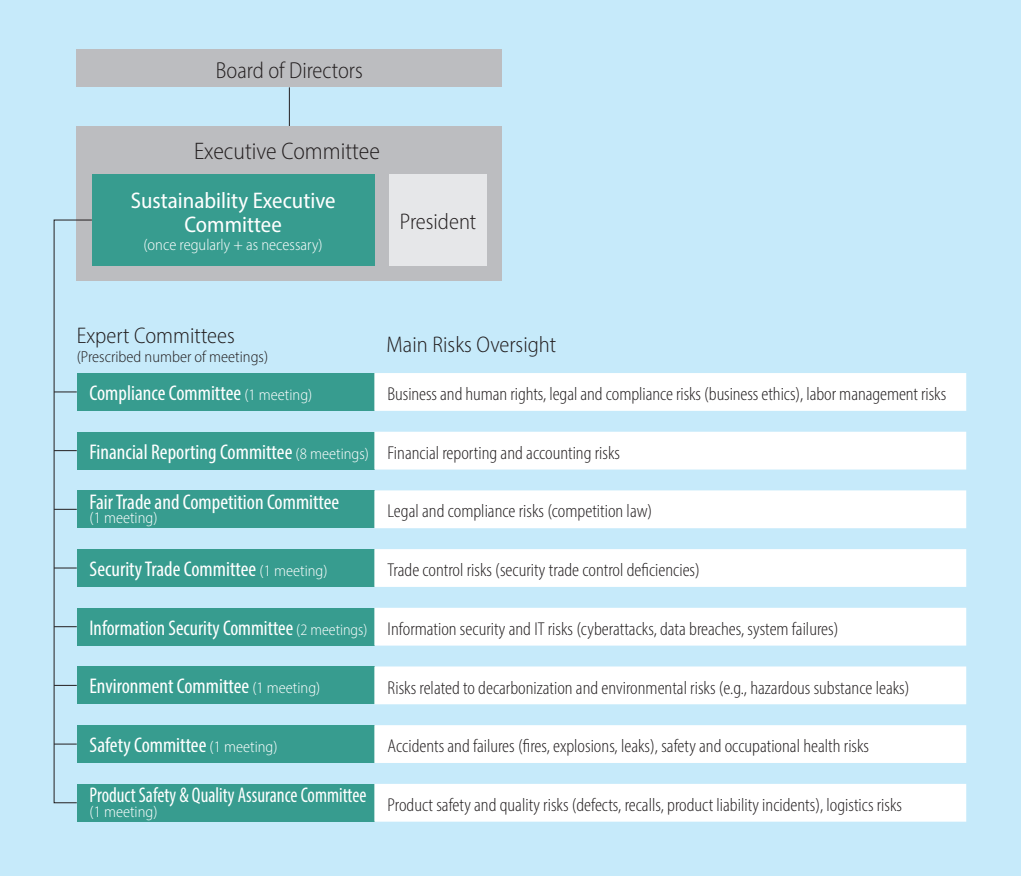
High	Mitigation measures have not been implemented or are completely inadequate
Moderate	Some measures have been implemented, but they are still insufficient
Low	Effective measures have been implemented and a management cycle is in place

For areas requiring particular expertise or considered especially important, expert committees chaired by the directors in charge have been established under the Sustainability Executive Committee. Each significant risk is assigned to the relevant expert committee, which determines the appropriate response policy and formulates and implements countermeasures. Figure 9 presents the expert committees and the main risks under their jurisdiction. Each expert committee evaluates and determines the appropriate response policy for the significant risks under its jurisdiction, such as reduction, avoidance, transfer, or retention. Based on the selected policy, the committee formulates and implements countermeasures and conducts regular reviews, ensuring that the measures are implemented in accordance with the Company's risk management system.

On Climate Change

The global decarbonization risks described above are also mapped and assigned to the relevant committee through this process. The Environment Committee oversees the identification and monitoring of Scope 1, Scope 2, and Scope 3 GHG emissions across the Group. Under the environmental management system, it sets energy-saving targets as priority objectives and leads related initiatives. The committee also ensures compliance with climate-related regulations. The Sustainability Executive Committee deliberates on the disclosure of climate-related information through the Integrated Report and this TCFD Report.

Figure 9: Committees with Jurisdiction over Risks



Metrics and Targets

For the purpose of setting management metrics and targets, the Tokuyama Group previously defined the period through FY2025, the final fiscal year of Medium-Term Management Plan 2025, as the short term, the period through FY2030 as the medium term, and the period through FY2050 as the long term, and managed progress accordingly. With the formulation of the Five-Year Management Plan 2030, the Group has established FY2035 as a new medium-term milestone and set new targets, taking into account changes in the business environment and alignment with its medium- to long-term decarbonization strategy.

a. Climate-Related Metrics

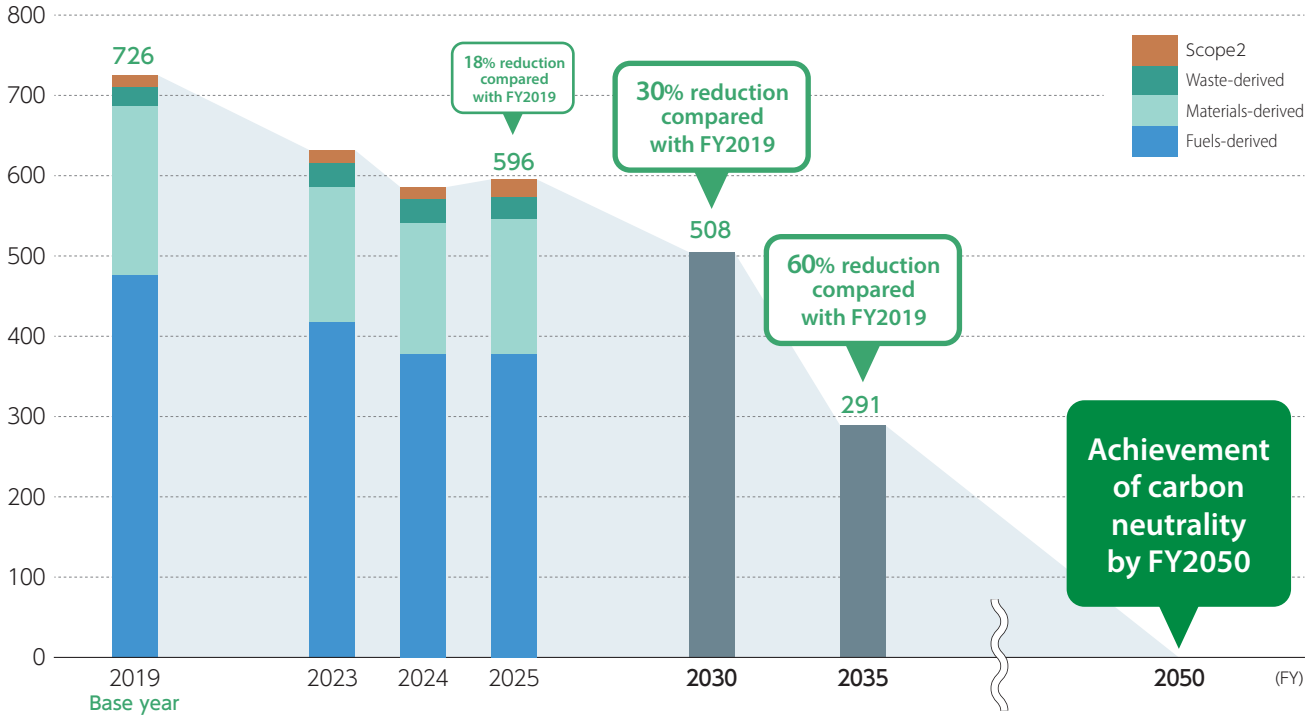
Reduction Targets for Scope 1 and 2 Emissions

The Group continuously monitors CO_2 emissions, energy consumption, and their respective intensities. The Five-Year Management Plan 2030 designates "Take responsibility for and address issues related to global environment" as one of the Group's materiality items. In addition to the existing target of reducing GHG emissions (Scope 1 and 2) from Tokuyama Corporation and its consolidated production subsidiaries by 30% by FY2030 compared with FY2019, the Group has newly set a target of reducing these emissions by 60% by FY2035 compared with FY2019, as it works toward achieving carbon neutrality by FY2050.

Moreover, when calculating the remuneration of all executive officers, the Company incorporates relevant items from its materiality into the evaluation metrics and assesses each officer based on the degree of contribution. Specific roles and responsibilities are thereby taken into account as evaluation factors.

Figure 10: Medium- to Long-Term GHG Emissions Reduction Targets (Scope 1 and 2)

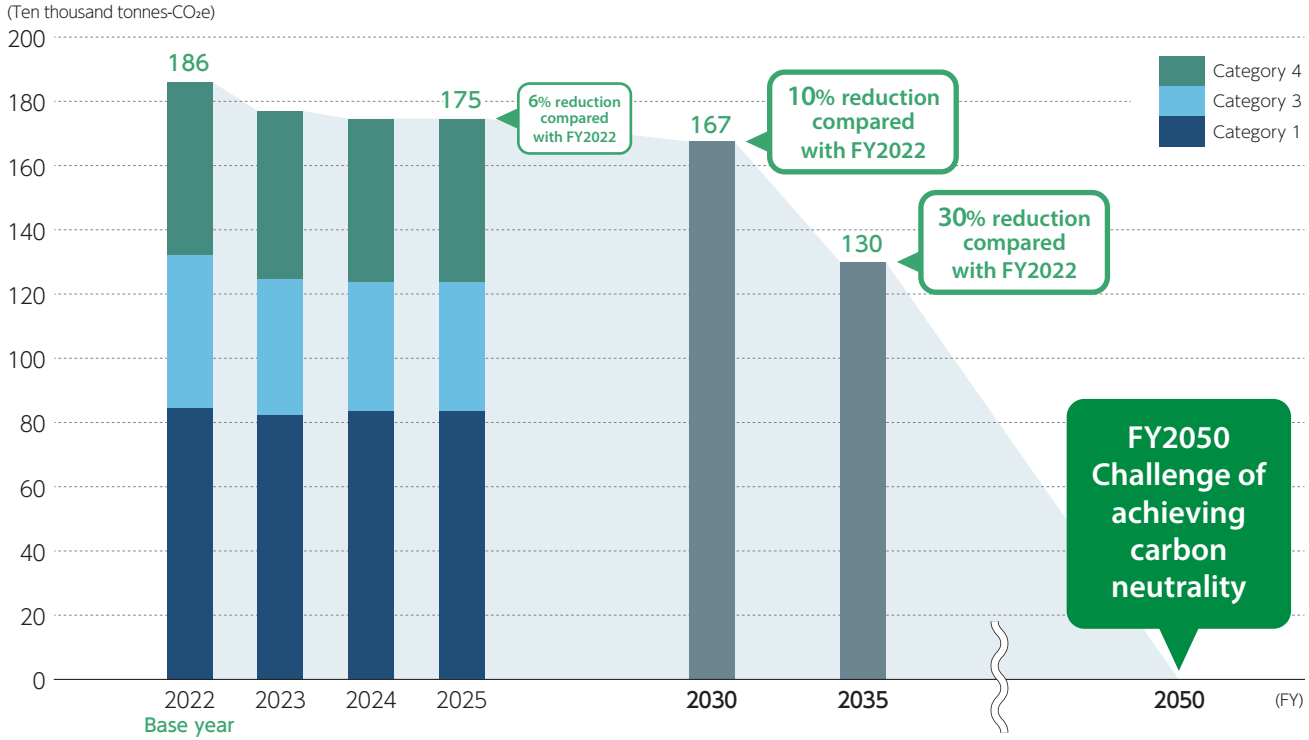
*GHG emissions from fuels include emissions derived from coal used as a thermal energy source.



Scope 3 Reduction Targets

The Group has also set Scope 3 emissions reduction targets as it takes on the challenge of achieving carbon neutrality across the entire supply chain. Categories 1, 3, and 4 account for more than 90% of the Group's total Scope 3 emissions; accordingly, the targets cover the combined emissions from these three categories. In addition to the existing target of reducing emissions by 10% by FY2030 compared with FY2022, the Group has newly set a target of a 30% reduction by FY2035 compared with FY2022. To achieve these targets, the Group will further strengthen supply chain engagement, while reviewing product design, optimizing logistics, and transforming its business portfolio.

Figure 11: Medium- to Long-Term Targets for Reducing Supply Chain GHG Emissions (Scope 3, Categories 1, 3, and 4)



Other important climate-related metrics and targets are described below.

Energy-Related Targets

The Group has set a voluntary target of reducing GHG emissions from fuel used for in-house power generation by 50% by FY2030 compared with FY2019. To achieve this target, the Group is considering and promoting the conversion of its in-house power generation facilities to non-fossil fuels, including biomass and ammonia. It has also set a target of increasing the combined share of renewable energy and ammonia to 30%.

For biomass, the Group plans to increase the co-firing ratio in stages. In addition to the palm kernel shells (PKS) already in use, it began co-firing wood pellets in October 2025. For ammonia, the Group had been studying its introduction since FY2023, with the aim of commencing co-firing by FY2030. However, in light of changes in the assumptions underlying the plan, including the availability of anticipated policy support and market conditions, the Group has decided not to introduce ammonia co-firing by FY2030. Ammonia nevertheless remains an important fuel option for consideration at the national and regional levels, and the Group will continue to assess its use in light of policy trends, technological advances, and the business environment. Consequently, the Group currently expects that it will not achieve its FY2030 target.

In FY2025, the ratio of renewable energy across the Group as a whole increased to approximately 4.6% (up 34% year on year).

Science Based Targets (SBTs)

The Group continues to consider seeking SBT validation, while closely monitoring revisions to the applicable criteria.

Metrics (Initiatives) Related to Internal Carbon Pricing (ICP)

To promote measures for reducing GHG emissions, the Group has applied internal carbon pricing (ICP) in evaluating investment projects since FY2019. Initially set at ¥3,700/t-CO_2 with reference to prices under the EU Emissions Trading System (EU ETS), the internal carbon price was raised to ¥10,000/t-CO_2 in FY2022 to strengthen the Group's GHG emissions reduction efforts. The Group will continue to use ICP to promote decarbonization initiatives over the short to medium term.

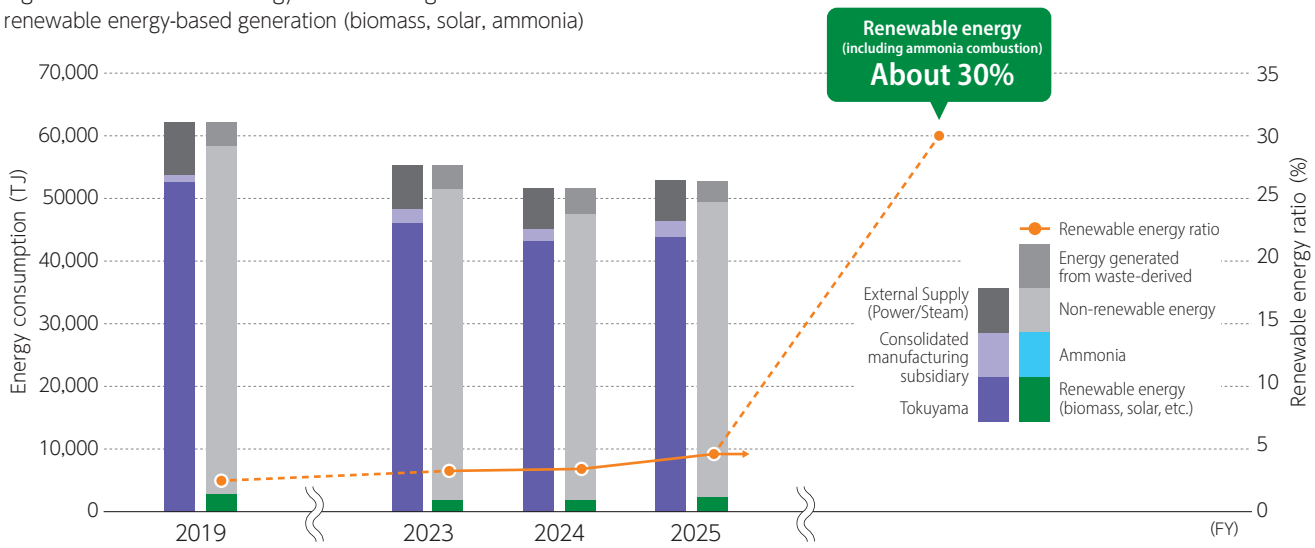
Water-Related Metrics and Targets

The Group's analysis of climate-related risks and opportunities has also demonstrated that climate change and water-related issues are closely interconnected.

The Group monitors daily the reservoir levels of the dams that supply industrial water for cooling and production processes, and manages water use by setting conservation rates according to reservoir levels. It conserves water by recirculating cooling water wherever possible and by effectively reusing condensate from steam generated at its power generation facilities. Although approximately 1.5 million m³ of cooling water is required each day, recirculation limits the daily intake of industrial water to no more than 100,000 m³. Approximately 25,000 m³ of condensate and other recovered water is reused each day.

The Group works to conserve water with the target of keeping water use at or below the FY2019 level. In FY2025, water use excluding seawater was 87% of the FY2019 level.

Figure 12: Renewable Energy Use and Targets
renewable energy-based generation (biomass, solar, ammonia)



*Due to the revision of the Revised Energy Conservation Act (effective April 2023), the calculation method changed, resulting in a decrease in renewable energy shown from FY2023 onward. However, the renewable energy ratio uses a common coefficient applied to activity volume, so it is presented in a manner comparable before and after the revision.

b. Scope 1, Scope 2, and Scope 3 GHG Emissions

Table 8 shows trends in Scope 1, Scope 2, and Scope 3 GHG emissions. In FY2025, total Scope 1 and Scope 2 GHG emissions decreased by 18% from the FY2019 base-year level, mainly as a result of biomass co-firing and ongoing energy-saving initiatives.

Table 8: Trends in Scope 1, Scope 2, and Scope 3 GHG Emissions *GHG Protocol third-party assurance (limited assurance) (Ten thousand tonnes-CO_2e)

			FY2019	FY2022	FY2023	FY2024	FY2025
Scope 1	Tokuyama (non-consolidated)	fuel-derived	487.2	438.1*	419.2*	382.4*	**385.3***
		raw material-derived	203.6	180.3*	166.6*	159.5*	**161.5***
		waste-derived	25.3	32.1*	29.6*	31.2*	**30.4***
	Domestic consolidated production subsidiaries		0.5	0.6*	0.7*	0.7*	**0.7***
	Overseas consolidated production subsidiaries		0.1	0.2*	0.7*	0.6*	**0.6***
	Total Scope 1		716.6	651.1*	616.8*	574.4*	**578.5***
Scope 2	Tokuyama (non-consolidated)		3.1	3.9*	3.7*	6.1*	**6.3***
	Domestic consolidated production subsidiaries		0.9	0.8*	0.8*	0.9*	**0.9***
	Overseas consolidated production subsidiaries		5.2	8.7*	10.7*	9.6*	**10.7***
	Total Scope 2		9.2	13.3*	15.2*	16.6*	**17.9***
Scope 3	Tokuyama (non-consolidated) —Categories 1–7 and 9		178.7	176.0	166.2	163.3*	**163.2***
	Tokuyama (non-consolidated) —Categories 1, 3, and 4		169.7	167.8*	157.5*	153.8*	**153.5***
	Domestic consolidated production subsidiaries (Categories 1, 3, and 4)		—	3.3	3.2*	3.6*	**3.2***
	Overseas consolidated production subsidiaries (Categories 1, 3, and 4)		—	15.1	16.3*	17.2*	**18.0***
	Total Scope 3 (Categories 1, 3, and 4)		169.7	186.2	177.0*	174.6*	**174.7***

Note: GHG emissions from biomass in FY2025 amounted to 360,000 t-CO_2e. Figures for prior fiscal years have been revised to reflect the addition of consolidated production subsidiaries and the use of unrounded values in the calculation process. The calculation methodology itself remains unchanged.

Table 9 presents a breakdown of Scope 3 GHG emissions by category. In FY2025, total emissions from Categories 1, 3, and 4 decreased by 6% from the FY2022 base-year level.

Table 9: Scope 3 GHG Emissions by Category (Ten thousand tonnes-CO_2e)

		FY2022	FY2023	FY2024	FY2025
Category 1	Tokuyama (non-consolidated)	71.2*	68.8*	68.5*	**78.5***
	Domestic consolidated production subsidiaries	1.6	1.3*	1.9*	**1.4***
	Overseas consolidated production subsidiaries	11.7	12.0*	13.5*	**13.6***
	Total Category 1	84.4	82.2*	83.9*	**93.5***
Category 3	Tokuyama (non-consolidated)	45.0*	39.0*	36.7*	**23.6***
	Domestic consolidated production subsidiaries	0.5	0.5*	0.5*	**0.5***
	Overseas consolidated production subsidiaries	2.1	3.0*	2.9*	**3.3***
	Total Category 3	47.6	42.4*	40.1*	**27.4***
Category 4	Tokuyama (non-consolidated)	51.6*	49.7*	48.6*	**51.4***
	Domestic consolidated production subsidiaries	1.3	1.4*	1.2*	**1.3***
	Overseas consolidated production subsidiaries	1.3	1.3*	0.8*	**1.1***
	Total Category 4	54.2	52.4*	50.6*	**53.8***
Total (categories 1, 3, 4)	Tokuyama (non-consolidated)	167.8*	157.5*	153.8*	**153.5***
	Domestic consolidated production subsidiaries	3.3	3.2*	3.6*	**3.2***
	Overseas consolidated production subsidiaries	15.1	16.3*	17.2*	**18.0***
	Total Scope 3 (Categories 1, 3, and 4)	186.2	177.0*	174.6*	**174.7***

*Third-party assurance (limited assurance)
*Totals may not equal the sum of the individual figures due to rounding. Figures for prior fiscal years have been revised to reflect the addition of consolidated production subsidiaries. The calculation methodology itself remains unchanged.

Boundary

The boundary for the Group's GHG emissions calculations covers Tokuyama and all 55 consolidated subsidiaries and applies to Scope 1, Scope 2, and Scope 3 emissions. Tokuyama and the 28 domestic and overseas consolidated production subsidiaries listed below account for more than 99% of the Group's total emissions. The Group therefore treats them as key emission sources and prioritizes them in its emissions reduction initiatives. A common calculation methodology is applied throughout the Group.

Tokuyama: Tokuyama Factory, Kashima Factory, Center for Commercialization of Advanced Technology, Tsukuba Research Laboratory, No. 2 Tsukuba Research Laboratory, Tokyo Head Office and branches, and each cement service station
Domestic consolidated production subsidiaries (21 companies, 26 sites): Sun Arrow Kasei Co., Ltd.; Tokuyama-Dowa Power Materials Co., Ltd.; Kagawa Tokuyama Co., Ltd.; Tokyo Tokuyama Concrete Co., Ltd.; Chugoku Ready Mixed Concrete Co., Ltd.; Hiroshima Tokuyama Ready Mixed Concrete Co., Ltd.; Seibu Tokuyama Ready Mixed Concrete Co., Ltd.; Shirokawa Co., Ltd. (Uwa, Shiro-kawa); Kyushu Tokuyama Ready Mixed Concrete Co., Ltd.; Toyomi Co., Ltd.; Notsuharu Co., Ltd.; Tokuyama MTech Corp. (Sodegaura, Hirakata); Tokuyama Art Block LABO Co., Ltd.; Tokuyama Dental Corporation; A&T Corporation (Shonan, Esashi); MEDICAL & BIOLOGICAL LABORATORIES CO., LTD. (Ina); MBL Materials Co., Ltd.; ASTOM Corporation; Tokuyama Chiyoda Gypsum Co., Ltd. (Yokkaichi, Kanto, Muroran); Tomitec Co., Ltd.; Tokuyama You You Farm Co., Ltd.
Overseas consolidated production subsidiaries (7 companies, 8 sites):
Tokuyama Chemicals (Zhejiang) Co., Ltd.; Formosa Tokuyama Advanced Chemicals Co., Ltd.; Taiwan Tokuyama Corporation (Hsinchu, Yunlin); STAC Co., Ltd.; MBL (Shenzhen) Biotech Co., Ltd.; Tokuyama Nouvelle Calédonie S.A.; Tokuyama Singapore Pte. Ltd.

Changes in consolidated production subsidiaries from the previous fiscal year's calculation are as follows: Shanghai Tokuyama Plastics Co., Ltd. was removed from the calculation boundary following the suspension of production in February 2025 and the discontinuation of its business in February 2026. MEDICAL & BIOLOGICAL LABORATORIES CO., LTD. (Ina), MBL Materials Co., Ltd., and MBL (Shenzhen) Biotech Co., Ltd. were added following the transfer of the relevant businesses from JSR Corporation.

Calculation Methodology

Calculation of Scope 1 and Scope 2 GHG Emissions
- Greenhouse Gas Emissions Calculation and Reporting Manual (Ver.6.1), March 2025, Ministry of the Environment / Ministry of Economy, Trade and Industry
- Emission Factors by Electric Utility (for calculation of GHG emissions by specified emitters) — FY2024 results — published January 9, 2026, Ministry of the Environment / Ministry of Economy, Trade and Industry

Calculation of Scope 3 GHG Emissions
- Basic Guidelines on Calculating Greenhouse Gas Emissions Throughout the Supply Chain (Ver.2.8), March 2026, Ministry of the Environment / Ministry of Economy, Trade and Industry
- Emission Intensity Database for Calculating Greenhouse Gas Emissions, etc. of Organizations Throughout the Supply Chain (Ver.3.6), March 2026, Ministry of the Environment / Ministry of Economy, Trade and Industry
- LCI Database, AIST IDEA v3.5.1, National Institute of Advanced Industrial Science and Technology, May 2025 (for supply chain GHG emissions calculation)

IDEA v2.3 was used to calculate emissions for FY2022 through FY2024. Beginning with the FY2025 results, the database was updated to IDEA v3.5.1. For some calculation items, emission factors changed significantly from the previous version. Consequently, the calculated emissions for Category 3 decreased, while those for Categories 1 and 4 increased.

Participation in the GX League

In FY2022, the Company announced its endorsement of the "GX League Basic Concept" published by the Ministry of Economy, Trade and Industry. The Company has participated in the GX League since it became fully operational in FY2023.

Participants in the GX League are required to set GHG emissions reduction targets in accordance with its standards. In addition to the Company' s targets established in accordance with the GHG Protocol, the Company has therefore set separate Scope 1 targets covering Tokuyama on a non-consolidated basis and its domestic consolidated production subsidiaries.

Although the GX League figures differ from those calculated in accordance with the GHG Protocol in terms of the base year and calculation method, both sets of figures are based on the same underlying data, and the reduction targets are aligned.

Total Scope 1 emissions for the three-year period from FY2023 to FY2025 were 16.771 million t-CO_2e, meeting the voluntary GX League target of no more than 18.346 million t-CO_2e.

From FY2026, the GX League will transition to a new framework. The Company will participate in both the GX Future Consortium and the GX Emissions Trading System (GX-ETS) and undertake activities under each framework.

Table 10: Tokuyama Group GHG Emissions Registered with the GX League

(Ten thousand tonnes-CO_2e)

		Base Year	FY2023	FY2024	FY2025
Scope1	Tokuyama (non-consolidated)	660.0 *	585.9 *	542.1 *	**546.9** *
	Waste-derived emissions (deduction)	(-26.3) *	(-29.4) *	(-31.0) *	**(-30.2)** *
	Domestic consolidated production subsidiaries0	0.5 *	0.7 *	0.7 *	**0.7** *
	Total Scope 1	660.5 *	586.7 *	542.7 *	**547.7** *
	Three-year total for Scope 1	—	1677.1		
Scope2	Tokuyama (non-consolidated)	2.8 *	3.5 *	6.1 *	**6.3** *
	Scope 2: Domestic consolidated production subsidiaries	1.1 *	0.7 *	0.8 *	**0.9** *
	Total Scope 2	3.9 *	4.3 *	6.9 *	**7.2** *
Total Scope 1 and Scope 2		664.4 *	591.0 *	549.7 *	**554.9** *

*Third-party assurance (reasonable). FY2023 figures reflect the shift from limited to reasonable assurance
*Re-registered due to boundary change

* Average from FY2019 to FY2021

c. Targets and Performance Against Targets

The Group has set the achievement of carbon neutrality by FY2050 as its long-term goal. To this end, it is working to reduce both fuel-derived and raw material-derived GHG emissions while developing innovative technologies.

Figure 13 illustrates the emissions reduction pathway toward the Group' s FY2030, FY2035, and FY2050 targets, together with the principal measures to be implemented.

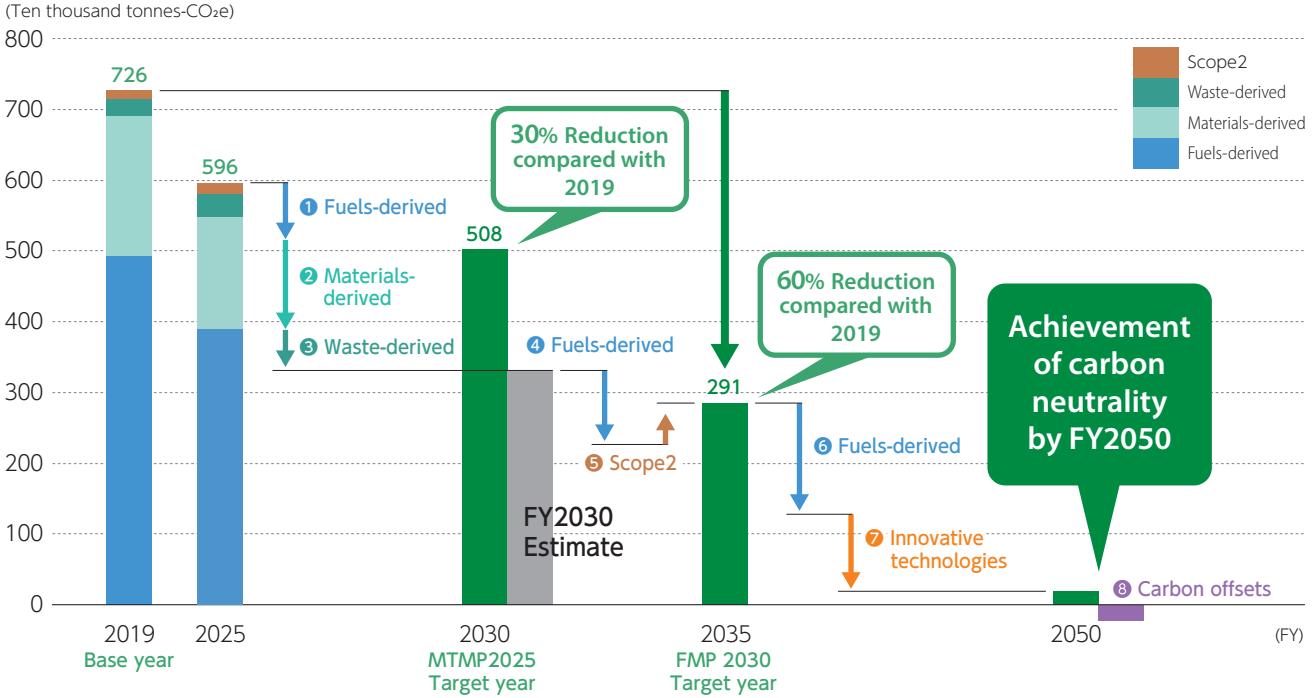
Fuel-derived GHG emissions account for approximately 70% of total emissions. The Group will reduce these emissions by further strengthening its ongoing energy-saving initiatives and converting to lower-carbon fuels, including biomass. The biomass co-firing ratio will be increased in stages.

Because it is difficult to eliminate fuel-derived and raw material-derived GHG emissions entirely, the Group believes that carbon capture and storage (CCS) will also be necessary. It will therefore continue to develop these technologies and assess their introduction.

While steadily reducing its own GHG emissions is an important corporate responsibility, the Group also recognizes its role in helping reduce emissions throughout society through the use of its products. It will continue to contribute to the achievement of carbon neutrality worldwide by developing innovative technologies.

The Group currently expects to achieve its FY2030 GHG emissions reduction target, reflecting structural factors such as the introduction of biomass co-firing and changes in its business portfolio.

Figure 13: Medium- to long-term GHG emission reduction targets (Scope 1 and 2)



1 ▶ Business portfolio transformation
▶ Biomass and ammonia co-firing
▶ Energy conservation, process improvements, equipment upgrades

2 ▶ Business portfolio transformation

3 ▶ Business portfolio transformation

4 ▶ Increase in the biomass co-firing ratio
▶ Decrease in Coal-Fired Power Generation
▶ Energy conservation, process improvements, equipment upgrades

5 ▶ Shift to purchased electricity

6 ▶ Fuel conversion
▶ Increased use of purchased renewable electricity
▶ Energy conservation, process improvements, equipment upgrades
▶ Improved energy efficiency across the industrial complex
▶ Business portfolio transformation

7 ▶ Introduction of innovative manufacturing processes

8 ▶ Introduction of negative-emissions technologies (CCS)
▶ Carbon offset

FY2025 Initiatives and Specific Progress

1 4 Reduction of fuel-derived emissions
See pages P.49, P.52

8 Carbon offsets
See pages P.49, P52, P53

The Group's principal sources of GHG emissions are coal-fired in-house power generation, which generates fuel-derived emissions, and cement manufacturing, which generates waste-derived, raw material-derived, and fuel-derived emissions.

Reduction of Fuel-Derived GHG Emissions from In-House Power Generation

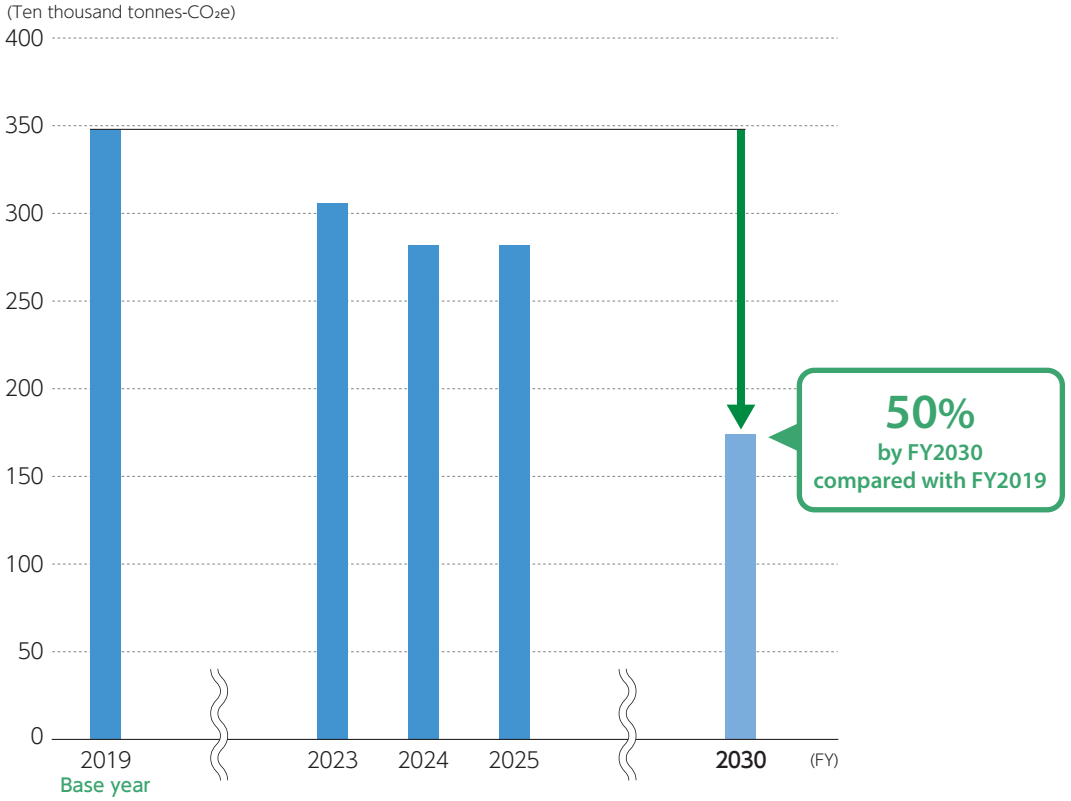
The Group has set a voluntary target of reducing fuel-derived GHG emissions from in-house power generation by 50% by FY2030 compared with FY2019 and is formulating and implementing measures to achieve this target.

In addition to the palm kernel shells (PKS) already in use for biomass co-firing, the Group completed the construction of facilities for co-firing wood pellets and began using them in October 2025. The Group will continue to increase the biomass co-firing ratio in stages while assessing economic feasibility.

As noted on p. 43, however, the Group has decided not to introduce ammonia co-firing by FY2030. Consequently, it currently expects that achieving the voluntary target by FY2030 will be difficult. Ammonia nevertheless remains an important fuel option for consideration at the national and regional levels, and the Group will continue to assess its use.

In addition to decarbonizing its in-house power generation, the Group will consider procuring renewable electricity from external sources. It also recognizes the need to shift toward a business portfolio that is less dependent on in-house power generation.

Figure 14: Plan for Reducing Fuel-Derived GHG Emissions from In-House Power Generation



The following sections describe specific progress made on initiatives in FY2025.

Improving Energy Efficiency across the Industrial Complex — Shunan Industrial Complex Decarbonization Promotion Council

14 Reduction in Fuel-Derived Emissions
8 Carbon Offset

In February 2022, with the aim of both maintaining and strengthening the industrial competitiveness of the Shunan Industrial Complex and achieving carbon neutrality, the Company established the Shunan Industrial Complex Decarbonization Promotion Council together with Shunan City, the Society of Chemical Engineers, Japan, and five companies operating in the industrial complex: Idemitsu Kosan Co., Ltd.; Nittetsu Stainless Steel Corporation (now Nippon Steel Corporation); Zeon Corporation; Tosoh Corporation; and the Company. The Council promotes decarbonization initiatives across the region.

In May 2023, the Council formulated and published a grand design presenting a vision for the Shunan Industrial Complex in 2050, together with a roadmap developed through backcasting. These documents set out the direction of energy conversion and CO_2 emissions reduction across the industrial complex. The Council has since established subcommittees to examine specific themes, including the introduction of next-generation energy and carbon recycling.

In FY2024, the Company and several other companies launched a study commissioned by NEDO, entitled "Survey toward the Implementation of an Inter-Industry Collaborative Carbon Recycling Business in the Shunan Industrial Complex." The study was completed in FY2025, and a report presenting its findings was submitted. It examined the technical feasibility and commercial viability of an integrated system for capturing and aggregating CO_2 generated within the industrial complex and either utilizing it through carbon capture and utilization (CCU) or storing it through carbon capture and storage (CCS). The study also compiled fundamental information needed to develop future carbon recycling businesses.

Based on the findings of these studies and demonstrations, the Company will work with relevant companies and government authorities to conduct phased demonstrations and assess commercialization. Through these efforts, it will promote the development of a region-wide green supply chain and the practical application of negative-emissions technologies.

Organizational Structure

Members	▶the Society of Chemical Engineers, Japan; ▶Shunan City; ▶Idemitsu Kosan Co., Ltd.; ▶Tosoh Corporation; ▶Nippon Steel Corporation; ▶Zeon Corporation; and the Company.
Observers	▶the Ministry of Economy, Trade and Industry; ▶the Ministry of Land, Infrastructure, Transport and Tourism; ▶the Ministry of the Environment; ▶Yamaguchi Prefecture; ▶Yamaguchi University.

Utilizing Regional Energy — Partnership Agreement on the Use of Wood Biomass Materials and the Maintenance of Forests

(Shunan City Wood Biomass Material Utilization Promotion Council)

14 Reduction in Fuel-Derived Emissions

To establish a sustainable energy supply system based on regional resources, the Company entered into a partnership agreement with Shunan City, Idemitsu Kosan Co., Ltd., Tosoh Corporation, and Marubeni Corporation on the use of wood biomass materials and the maintenance of forests. The partners are promoting coordinated initiatives across the region.

Under this agreement, fast-growing tree species were planted in December 2022 and again in March 2024 to develop forest resources that can support a stable supply of wood biomass fuel. Their growth has been continuously monitored since planting.

In FY2025, the partners continued to monitor and manage the planted trees while examining the future use of forest resources as biomass fuel.

Through these initiatives, the Company and its partners will promote the sustainable, circular use of forest resources through a reforestation model based on fast-growing trees. They will also explore a locally produced and locally consumed energy supply model using wood biomass materials.

Attempts to promote the utilization of biomass materials within the Shunan Industrial Complex

1. Demonstration of fast-growing tree planting by Shunan City

A pilot project is underway to utilize land owned by Shunan City to plant fast-growing trees for fuel.

Fast-growing trees: Species that grow faster than Japanese cedar and cypress

2. Shunan City, Idemitsu Kosan, Tosoh, Marubeni, and Tokuyama signed a partnership agreement for forest maintenance and the utilization of woody biomass material

Cooperation areas
1. Utilization of locally grown woody biomass and for local consumption
2. Forest maintenance and its effective use, etc.

CDP — Named a Supplier Engagement Leader for the Second Consecutive Year

The Company was named a Supplier Engagement Leader—the highest rating in CDP's FY2025 Supplier Engagement Assessment—for the second consecutive year.

This recognition reflects the Company's designation of "Helping to fight global warming" as a priority issue under Medium-Term Management Plan 2025, as well as its initiatives to reduce GHG emissions throughout the supply chain. The assessment particularly recognized the following efforts:

•Setting Scope 3 emissions reduction targets and promoting Group-wide emissions management and disclosure
•Establishing a policy for decarbonization throughout the value chain, including suppliers
•Strengthening climate-related risk management and governance
•Enhancing disclosure in line with the TCFD recommendations

These initiatives have strengthened the Company's framework for reducing GHG emissions throughout the supply chain and have earned international recognition for its response to climate change.

The Company will continue to strengthen collaboration with suppliers, reduce GHG emissions throughout the value chain, and build a sustainable supply chain.

Hydrogen Utilization Model — Demonstration of Stationary Fuel Cell Power Systems Using By-Product Hydrogen and Repurposed Automotive Fuel Cells

To develop a low-carbon energy supply model that makes effective use of by-product hydrogen, the Company is conducting a demonstration project in Shunan City in collaboration with Honda Motor Co., Ltd. and Mitsubishi Corporation. The project is entitled "Demonstration of Stationary Fuel Cell Power Systems for Data Centers Using By-Product Hydrogen and Repurposed Automotive Fuel Cells."

In June 2023, the project was selected for NEDO's Hydrogen Society Development Technology Project. Demonstration operations began in August 2025.

The project uses by-product hydrogen generated through the Company's salt electrolysis operations as fuel. Electricity is generated using a stationary fuel cell power system developed by Honda Motor Co., Ltd. based on fuel cells repurposed from fuel cell electric vehicles (FCEVs), and is supplied to a distributed data center operated by Mitsubishi Corporation.

The demonstration combines the fuel cell power system with grid electricity, renewable energy, and a battery energy storage system (BESS). An energy management system (EMS) optimizes the operation of these energy sources to verify a highly efficient and flexible power supply model.

The project is testing several operating modes: use as the data center's primary and backup power source, peak shaving during periods of high electricity demand, and the provision of balancing capacity to the power grid. The Company is evaluating the operational practicality and commercial viability of each mode.

FY2025 Results:

The Company completed and opened the demonstration site in Shunan City and began demonstration operations to supply electricity to data centers using by-product hydrogen and stationary fuel cell power systems. The project has begun verifying the potential to supply low-carbon electricity using by-product hydrogen and the applicability of repurposed automotive fuel cells as stationary power systems.

Through this initiative, the Company aims to promote the local use of by-product hydrogen and establish a regional, hydrogen-based circular energy system. By providing a stable, low-carbon power supply in response to growing electricity demand from data centers, the Company also seeks to contribute to the green transformation (GX) of data centers and the digital transformation (DX) of local governments and regional companies. Drawing on the knowledge gained from the demonstration, the Company will develop a business model combining fuel cell systems with hydrogen supply and promote the wider use of hydrogen as next-generation energy infrastructure.

Tokuyama Achieves Silver Grade under the GX Proactive Implementation Declaration

As part of its efforts to promote green transformation (GX), the Company achieved Silver Grade under the GX League's GX Proactive Implementation Declaration in July 2025.

The declaration sets out the Company's policy of establishing GHG emissions reduction targets covering the entire supply chain and promoting the wider adoption of GX products and services.

The Company has set a target of reducing Scope 1 and Scope 2 GHG emissions by 30% by FY2030 compared with FY2019. To help achieve this target, it had been considering the introduction of low-carbon ammonia co-firing at its in-house power generation facilities. However, in light of changes in the assumptions underlying the plan, including the availability of anticipated policy support and market conditions, the Company has decided not to introduce ammonia co-firing by FY2030. Ammonia nevertheless remains an important fuel option for consideration at the national and regional levels, and the Company will continue to assess its use in light of policy trends, technological advances, and the business environment.

For Scope 3, the Company has set a target of reducing emissions by 10% by FY2030 compared with FY2022. The target covers Category 1 (purchased goods and services), Category 3 (fuel- and energy-related activities), and Category 4 (upstream transportation and distribution), which account for the majority of the Group's Scope 3 emissions. The Company is working to reduce emissions throughout the supply chain.

The Company has also adopted a policy of reflecting in its products the environmental value created by decarbonizing its in-house power generation. In this way, it aims to enhance the added value of these products and expand the market for them as GX products.

The Company will continue to help develop and expand the GX market by decarbonizing its in-house power generation and promoting the value of green products, while reducing GHG emissions throughout the supply chain.

Photovoltaic (PV) Panel Recycling

Business opportunities

To address the growing challenge of disposing of used PV panels and promote more advanced resource circulation, the Company is developing PV panel recycling technology and working toward its commercialization.

Large quantities of PV panels are expected to reach the end of their service lives from the latter half of the 2030s onward, making their proper disposal and the effective use of recovered materials an important societal issue. In particular, high-quality recycling of glass and silicon, the principal materials used in PV panels, presents technical challenges and is an important step toward realizing a circular economy.

Through joint development with NEDO since FY2019, the Company has established a low-temperature pyrolysis recycling technology that enables the high-quality separation and recovery of glass, resin, cells, and other components of PV panels.

The technology efficiently dismantles PV panels by thermally decomposing the resin and enables high-purity glass to be recovered in sheet form. This facilitates material recycling and the use of recovered materials in higher-value applications.

At a demonstration facility in Hokkaido, Japan, the Company is further refining the technology and developing a business model. It is also collaborating with other companies to establish a resource circulation system covering the collection, recycling, and reuse of used PV panels.

Through these initiatives, the Company aims to achieve 100% resource recovery without relying on landfill disposal, thereby contributing to a circular and decarbonized society.

FY2025 Results:

The Company made steady progress toward the practical application of its PV panel recycling technology. Using its low-temperature pyrolysis recycling technology, it conducted an upcycling demonstration in which sheet glass recovered from PV panels was reused without being crushed. The demonstration confirmed its potential for use in office furniture components. This approach is expected to reduce CO_2 emissions by up to approximately 50% compared with the manufacture of new glass.

As a step toward commercialization, the Company entered into an agreement with Kansai Electric Power Co., Inc. and TRE Holdings Corporation on the reuse and recycling of used PV panels. The parties have begun examining a business model centered on closed-loop recycling, in which recovered materials are reused in the same type of product.

In addition, the Company's R&D project on low-cost processing and silicon recycling technologies for PV panels was selected under NEDO's FY2025 public call. The Company has begun work to further refine the technologies and reduce processing costs.

These initiatives have advanced recycling technologies, expanded potential applications for recovered materials, and further defined the resource circulation model. The Company will continue to develop the technologies and establish a viable business model, with the aim of putting PV panel recycling into practical use. Through these efforts, it will reduce environmental impact and contribute to a circular economy as the use of renewable energy expands.

Biomass and Ammonia Co-Firing — Transition Project for the Stable Supply of Next-Generation Fuels

14 Reduction in Fuel-Derived Emissions

To reduce GHG emissions through fuel conversion at its in-house power generation facilities, the Company has been examining the use of biomass and ammonia as it transitions to next-generation fuels.

For biomass, the Company carried out modifications to one of its coal-fired in-house power generation facilities beginning in FY2024 and commenced wood pellet co-firing in October 2025. This marked the transition from planning to implementation of measures to reduce coal consumption and GHG emissions.

For ammonia, the Company had been considering the introduction of co-firing since FY2023, with the aim of commencing operations by FY2030. However, in light of changes in the assumptions underlying the plan, including the availability of anticipated policy support and market conditions, the Company has decided not to introduce ammonia co-firing by FY2030.

The Company will steadily reduce emissions by expanding biomass co-firing. It will also continue to assess the feasibility of introducing next-generation fuels in light of technological developments, the policy and regulatory environment, and progress in developing fuel supply infrastructure. Through these efforts, the Company will advance the phased decarbonization of its energy supply.

Carbon Offset through Blue Carbon

8 Carbon Offset

To create a CO_2 sink based on local natural resources and make use of the resulting environmental value, the Company participates in the Tokuyama-Kudamatsu Port and Oshima Tidal Flat Blue Carbon Offset System. Under this system, the Company uses J-Blue Credits certified and issued by the Japan Blue Economy Association, an organization approved by the Minister of Land, Infrastructure, Transport and Tourism.

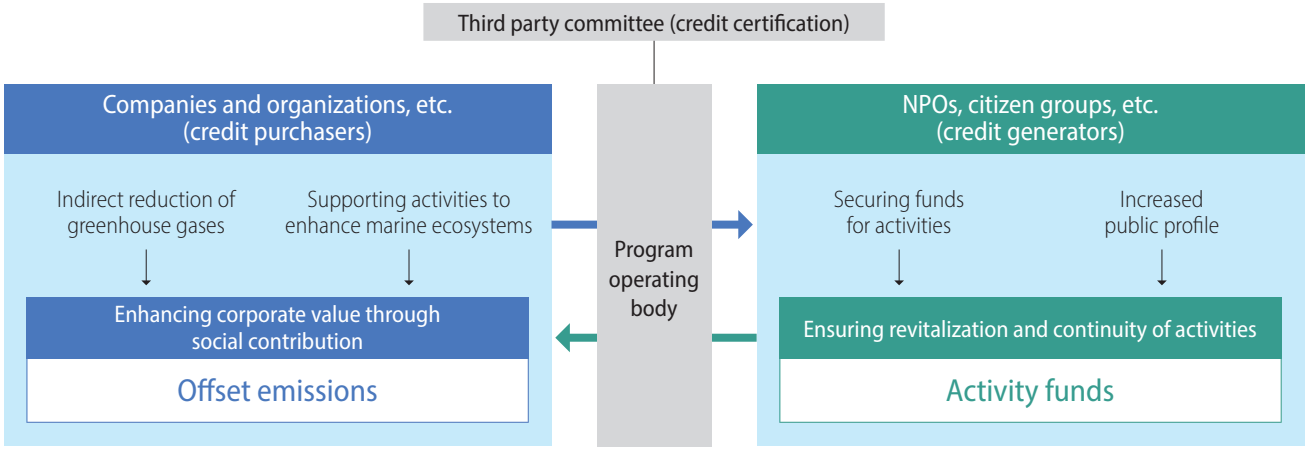
Blue carbon* refers to carbon captured and stored from atmospheric CO_2 by coastal and marine ecosystems, including seagrass beds and tidal flats. It is attracting attention as a nature-based means of removing CO_2 from the atmosphere.

Under the system, the amount of CO_2 absorbed through activities such as the conservation of seagrass beds in the Oshima tidal flat is certified and issued as J-Blue Credits. By purchasing and using these credits, the Company can offset a portion of the GHG emissions associated with its activities.

In FY2025, the Company purchased J-Blue Credits equivalent to 9.8 t-CO_2.

Through this initiative, the Company supports the conservation of the local marine environment while contributing to GHG emissions reduction. It will continue to work with local communities to make effective use of environmental value and promote initiatives that conserve natural capital and contribute to a decarbonized society.

*Blue carbon: Carbon captured and stored from atmospheric CO_2 by coastal and marine ecosystems, including seagrass beds, tidal flats, and other marine habitats.



Introduction of Negative Emission Technology (CCUS) — Development of Carbon-Negative Concrete

8 Carbon Offset
Business opportunities

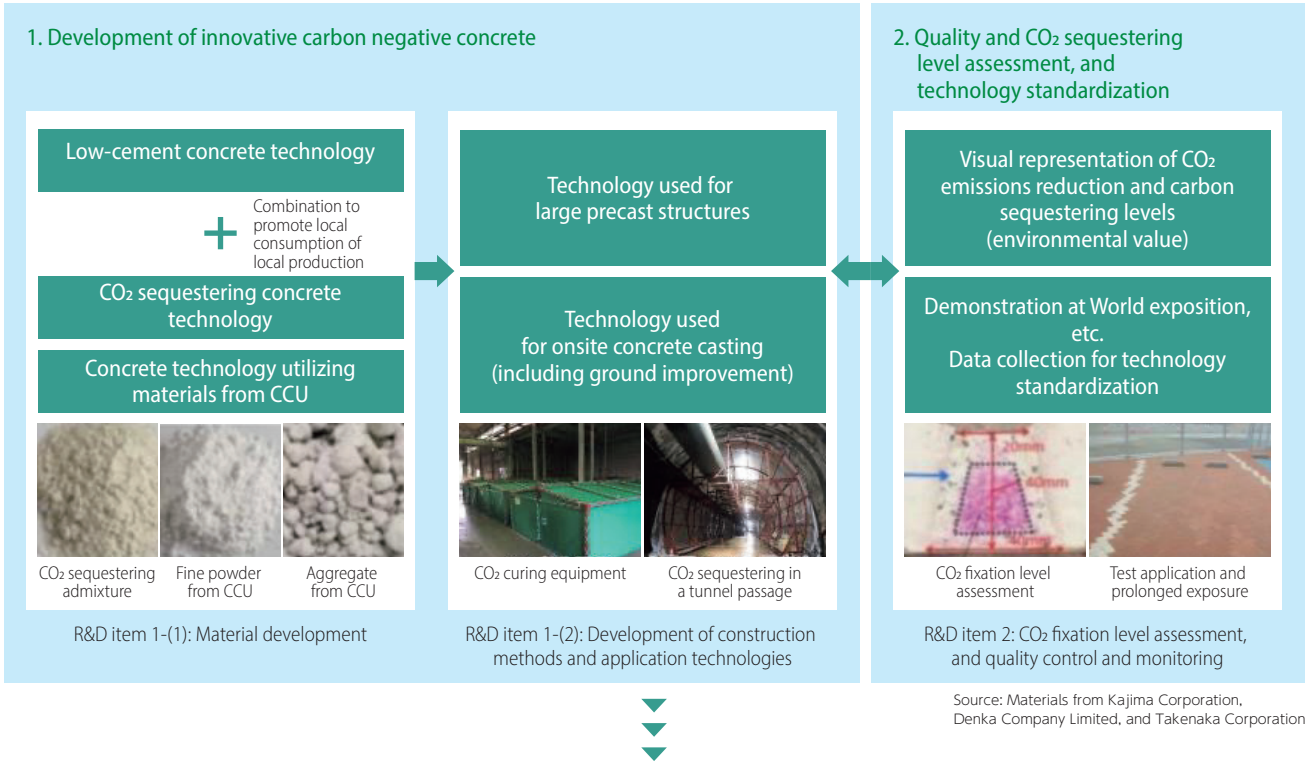
Carbon-negative concrete combines technologies for reducing and permanently fixing CO_2 so that net CO_2 emissions over the manufacturing process are below zero. It is considered a promising technology for achieving a decarbonized society.

As part of NEDO's Green Innovation Fund project, "Development of Innovative Carbon-Negative Concrete Materials, Construction Technologies, and Quality Evaluation Technologies," the Company is collaborating with Denka Company Limited to develop admixtures for concrete that permanently fixes CO_2.

The Company is primarily responsible for developing CO_2-fixing admixtures made from unused calcium-based waste. It is examining how the various components contained in the waste affect the mineral composition and quality of the admixtures. The results to date have confirmed the potential to achieve commercially viable quality even when waste accounts for approximately 50% of the raw materials.

FY2025 Results:

The Company advanced the development of technologies that combine CO_2 fixation with resource circulation as part of its work toward realizing carbon-negative concrete. As planned, it refined the design of CO_2-fixing admixtures made from waste materials. Specifically, the Company identified waste materials with strong potential for use as raw materials and evaluated methods for controlling the effects of impurities on performance. These efforts advanced the development of the fundamental technologies needed to ensure consistent quality.



Source: Materials from Kajima Corporation, Denka Company Limited, and Takenaka Corporation

The Company is also examining the future use of hydrogen and ammonia as energy sources for the process and the establishment of a manufacturing process that makes use of its existing facilities.

The Company has also begun examining a mineralization technology that reacts calcium recovered from waste with CO_2 in exhaust gas. The process permanently fixes the CO_2 as calcium carbonate for use in concrete materials. The Company has pursued this initiative since FY2024 as a member of the consortium participating in the Green Innovation Fund project, which is led by a team headed by Kajima Corporation. Through these initiatives, the Company has advanced the evaluation of this technology's potential as a negative-emissions solution that not only reduces CO_2 emissions but also removes CO_2 from the atmosphere.

Based on these results, the Company will promote the effective use of waste, further refine its CO_2 fixation technologies, optimize the manufacturing process, and assess commercial viability. Through these efforts, it aims to put carbon-negative concrete into practical use.

*Green Innovation Fund: A ¥2 trillion fund established by NEDO to support the achievement of carbon neutrality by 2050. Under the program, the government and participating companies share ambitious and specific goals, and eligible companies receive continuous support for up to 10 years, from R&D and demonstration through practical application. The project consortium comprises more than 40 companies, 10 universities, and one research institution. Source: materials published by Kajima Corporation, Denka Company Limited, and Takenaka Corporation.

Electrolyzer Business at the Center for Commercialization of Advanced Technology

Business opportunities

In response to the transition toward carbon neutrality, the Company has entered the electrolyzer business, drawing on its long-standing expertise in electrolysis technology and hydrogen handling. The Center for Commercialization of Advanced Technology in Yanai City serves as the base for this business.

At this facility, the Company has begun manufacturing large-scale chlor-alkali electrolyzers with world-leading energy efficiency. It is also establishing a system for manufacturing alkaline water electrolyzers on the same production line.

The Company's proprietary zero-gap chlor-alkali electrolysis technology enables its electrolyzers to achieve world-leading energy efficiency. By promoting the wider adoption of these highly efficient electrolyzers for caustic soda production, the Company will contribute to reducing energy consumption.

Through this business, the Company aims to help build an energy-efficient hydrogen supply chain covering production through end use. It will also contribute to the wider adoption of renewable energy, the development of locally produced and locally consumed energy systems in Japan and overseas, and the realization of a hydrogen-based society.

Fuel Conversion in Cullet Manufacturing



To reduce CO_2 emissions and other environmental impacts, the Company is planning a major upgrade of its cullet manufacturing facilities at the Tokuyama Factory, including the conversion to lower-carbon fuels.

The Company plans to replace the aging manufacturing equipment in FY2027. As part of this renewal, the heavy fuel oil and kerosene currently used in the melting furnace and drying process will be replaced with city gas.

The Company also plans to replace conventional air combustion with oxy-fuel combustion in the melting furnace to improve combustion efficiency and reduce energy consumption.

Through these equipment upgrades and process improvements, the Company aims to reduce sulfur oxide (SOx) and nitrogen oxide (NOx) emissions in the exhaust gas and cut CO_2 emissions from the manufacturing process by approximately 40%.

The Company is Japan's largest manufacturer of cullet, with an annual production capacity of approximately 180,000 tonnes. It regards this initiative as an important measure for ensuring a stable supply while reducing environmental impact. The Company will continue to improve energy efficiency through equipment upgrades and technological improvements as it develops a more sustainable production system.

*Cullet: A glass-like solid form of anhydrous sodium silicate used as a raw material for sodium silicate solution, commonly known as water glass. Water glass is used in a wide range of applications, including ground stabilization and water-leak prevention in civil engineering, as well as the production of precipitated silica, silica gel, and other chemical products.

Launching Mass Production of Magnesium Hydride, a Next-Generation Hydrogen Carrier

Business opportunities

The Company has installed magnesium hydride (MgH_2) production facilities at the Tokuyama Factory and is working toward commercialization.

Hydrogen is regarded as an important secondary energy source for achieving carbon neutrality. However, its low energy density means that it is typically stored and transported as a high-pressure gas or cryogenic liquid. The associated infrastructure, storage, and transportation costs increase the delivered cost of hydrogen and present a major barrier to its widespread adoption.

Magnesium hydride has a high hydrogen density compared with other hydrogen carriers and is chemically stable at ambient temperature and pressure. In Japan, magnesium hydride with a particle size of 15 μm or greater is not subject to regulation under the Fire Service Act. It can therefore be stored and transported in a manner similar to general cargo, making it a promising option for handling hydrogen.

To explore applications for magnesium hydride, the Company joined the Sapporo City Hydrogen and Renewable Energy Promotion Council, which was established by Sapporo City on June 13, 2025. The Council brings together approximately 50 local governments, private-sector companies, and other organizations to discuss the following priority themes for building a hydrogen supply chain and fostering related industries in Sapporo and across Hokkaido:

1. Developing a green hydrogen production and supply model linked to power generation businesses and renewable energy sites in Hokkaido
2. Establishing efficient hydrogen transportation using hydrogen carriers and existing logistics and distribution networks
3. Developing and introducing efficient hydrogen-based heating equipment in collaboration with local companies

As a specific initiative under the third priority theme, on March 5, 2026, the Company invested in and established H2 Hokkaido Co., Ltd. together with Sapporo Tsuchiya Holdings Co., Ltd.; Toyota Motor Hokkaido, Inc.; The Hokuyo Bank, Ltd.; The Hokkaido Bank, Ltd.; and Mizuho Bank, Ltd. On the same date, H2 Hokkaido and Sapporo City entered into a Partnership Agreement on the Promotion of Hydrogen Energy Use. H2 Hokkaido will conduct R&D and manufacture and sell hydrogen combustion and utilization equipment using magnesium hydride.

Although Hokkaido has abundant renewable energy potential, transporting that energy at scale and at low cost remains a challenge. By developing an energy transportation system using magnesium hydride, the Company will contribute to building a hydrogen supply chain and achieving carbon neutrality.



Magnesium hydride

Features of Magnesium Hydride

- Stable at ambient temperature and pressure, enabling storage and transportation in a manner similar to general cargo
- Higher volumetric hydrogen density than ammonia (NH_3)
- Efficient hydrogen release: hydrolysis generates twice the amount of hydrogen contained in MgH_2 alone ($MgH_2 + 2H_2O \rightarrow 2H_2 + Mg(OH)_2$)

Magnesium hydride manufacturing and sales process

