TCFD Consortium

Transition Plan Guidebook

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Contents

Chapter 1 Purpose and Background

1. Purpose of this guidebook

In recent years, an increasing number of countries and regions have announced carbon neutrality targets, accounting for 94% of globally aggregated GDP.[1] Companies operating in these countries are also establishing their own targets in response to national carbon neutrality targets. As the year 2030 when intermediate milestones for many of these targets are set draws near, investors[2] are showing growing interest in obtaining information on how to achieve these targets, and companies are being requested to prepare and disclose their transition plans.

At present, there is no uniform understanding of what a transition plan should be, but as society as a whole transitions toward a low carbon, decarbonized society, it is drawing attention as one of the means of disclosure to appeal to investors about how companies create value. In other words, presenting a transition plan as a part of a company's strategy may increase the possibility of attracting capital from domestic and overseas investors. This guidebook summarizes the current understanding of the basic concepts, elements, and method to formulate transition plans, which is referred to in publications by TCFD as well as IFRS Sustainability Disclosure Standards and also have been incorporated in various frameworks in recent years, with an aim to serve as reference for companies formulating transition plans in voluntary disclosure media such as integrated reports.

TCFD Guidance 2.0 and 3.0 which have been published by the TCFD Consortium are also written from the perspective of companies, as is the case with this guidebook, but are also useful to investors who read the disclosure information. Similarly, although this guidebook is prepared to support disclosing companies, it has an additional purpose of aiding investors to have a common understanding of transition plans and utilize them in investment decisions.

This guidebook defines transition plans as "Decision-useful information that provides the clearest possible picture of how a company can balance value creation with the transition to a low-carbon, decarbonized society." This definition is considered to be in line with the relevant guidance to date. As mentioned above, the interpretation of what is required in a transition plan is not uniform at present, and the answer to "what is appropriate as a transition plan" may change in the future. It is also assumed that there are differences in views among regions

[1] Agency for Natural Resources and Energy, 2023, Energy White Paper 2023

[2] In this guidebook, the term investors refer to asset owners, asset managers, banks, insurance companies and other information users, following the description in TCFD Consortium, 2021, Guidance for Utilizing-Climate-related Information to Promote Green Investment 2.0 (Green Investment Guidance 2.0)

in which businesses operate, sectors, and investors.[3,4] In this sense, the guidebook can be regarded as a "snapshot" of the current situation, which should be revised as companies and investors further their understanding.

2. Background and History of Preparation of this Guidebook

The following three factors comprise the background to the preparation of this document.

First, the focus of climate-related disclosure has changed since the TCFD recommendations. The 2017 TCFD recommendations aimed to identify risks in the event of climate change or, conversely, in the event that large-scale climate change measures are implemented with the aim of mitigating climate change (called physical risks and transition risks, respectively) as well as opportunities, and to establish and disclose organizational resilience against these risks. In this sense, the TCFD recommendations did not clearly set out the direction of transition to a low-carbon, decarbonized society. On the other hand, in the TCFD publication "Guidance on Metrics, Targets, and Transition Plans" released in 2021 when the carbon neutrality targets of nations and companies mentioned at the beginning were proposed successively, positioned transition planning as an aspect of business strategy for the transition to a low-carbon, decarbonized society, establishing a clearer direction for transition.

The second factor is the emergence of various transition plan frameworks released, as companies and other entities adopt carbon neutrality targets. In particular, the Glasgow Financial Alliance for Net Zero (GFANZ) and the Transition Plan Taskforce (TPT) of the United Kingdom, which were established at or following COP26 in 2021, further promoted the direction of transition plan by including "engagement strategy" as an element of the transition plan disclosure framework and requiring disclosure of transition activities through engaging with others, as well as "culture" as part of governance and "strategic ambition" as one of the elements.

At the same time, ongoing events at the government level in Japan and overseas regarding corporate transition are also important. At the G7 Climate, Energy and Environment Ministers meeting held in Sapporo in 2023, the ministers highlighted "the need for corporates to implement their net-zero transition, in line with the temperature goal of the Paris Agreement, based on credible corporate climate transition plans". Furthermore, the "GX League," a

[3] It is important to view the "value" created by a company in a cyclical manner where the company earns profits by solving the issues faced by stakeholders through its competitively advantageous business activities, thereby enhancing corporate value in a medium- to long-term and sustainable manner, while using such profits for shareholder return and reinvestment to solve further issues. Such cyclical thinking will accelerate the synchronization of social sustainability (responding to the demands for a sustainable society) and corporate sustainability (maintaining and strengthening companies' ability to generate funds for growth (earning power) in a long-term and sustainable manner). (Ministry of Economy, Trade and Industry, 2022, Guidance for Integrated Corporate Disclosure and Company-Investor Dialogue for Collaborative Value Creation 2.0 (Guidance for Collaborative Value Creation 2.0)

[4] Companies should disclose narrative information in a clear way so that its contents can be both easily and deeply understood. (Financial Services Agency, 2019, Principles Regarding the Disclosure of Narrative Information)

Japanese initiative, stipulates that participating companies are required to declare carbon neutrality by 2050 and to formulate and announce their own transition strategies to achieve it.

This guidebook is the result of discussing the issue of transition plan through the activities of the TCFD Consortium, under this background. Specifically, based on the understanding of domestic and international trends in the transition plan, the Steering Committee of the Consortium which formulates the direction of the TCFD Consortium, and the "Roundtable," which is a small forum for exchanging opinions with companies and investors, discussed the issue of transition plan as the main theme. In addition, inquiries are made to investors who are listed in the "GIG Supporters," which are financial companies that utilizes the "Green Investment Guidance" formulated by the TCFD Consortium, on what they consider to be good disclosure examples of the transition plan, as well as the reasons for considering so. In addition, hearings and meetings to exchange views were held to the Transition Plan Taskforce (TPT), an international initiative, as well as for a number of companies and investors working on the development of transition plans.

During the course of discussions at the TCFD Consortium, a common understanding was that investors are interested in improving corporate value in the medium to long term, and that companies' transition to a low-carbon, decarbonized society should be discussed in this context.[5] In addition, investors raised concerns that the more detailed companies' TCFD disclosures become, the more the disclosure itself becomes the purpose, and that the link between business strategies such as medium- to long-term investments required for transition, and emission reduction targets becomes weaker. They also raised concerns about the need for closer alignment with business strategy, as considerable measures are required even with a short to medium-term time horizon up to 2030. On the other hand, from the standpoint of companies, confusion arising from the emergence of various frameworks and the need to recognize the diversity of industries were presented as issues, suggesting that it is desirable to visualize what transition plans appeal to investors' decision-making through case examples.

Based on the above, we define transition plans as "Decision-useful information that provides the clearest possible picture of how a company can balance value creation with the transition to a low-carbon, decarbonized society" as described above, and identified three basic concepts, namely (1) transition to a low-carbon, decarbonized society, (2) alignment with business strategy, and (3) reaching out to others. On this basis, the guidebook explains how transition plans should be formulated.

[5] From the standpoint of "double materiality," which refers to the impact that companies have on the environment and society, the impact on sustainability is also an issue of concern.

3. Structure of the guidebook

Chapters 1 to 3 of the guidebook discusses the purpose and background of transition plans, an overview of discussions on transition plans, and how companies can formulate transition plans, for the purpose of providing a reference for a broad range of companies that should consider formulation of or is deemed desirable to formulate transition plans discussed below. Furthermore, it should be noted that there are several possible purposes for companies to formulate transition plans, such as raising funds for specific capital investments or achieving emission reductions for the company as a whole through participation in the GX League. Chapter 2 (especially 2.1) discusses ideas corresponding to these purposes. In view of the changing nature of definitions and understanding of transition plans, the explanations in this guidebook has been kept relatively brief. In addition, following chapter 4 on the overall summary, examples of transition plans evaluated by current investors are included, in order to avoid abstract discussions as much as possible and promoting understanding through actual case examples.

Chapter 2 Overview of the Discussion on Transition Plan

1. Definition of the Transition Plan

(1) Definition of the Transition Plan in the TCFD Recommendations

Among the publications from TCFD, the transition plan is not mentioned in the TCFD Recommendations published in 2017. However, as mentioned above, the publication "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures" (commonly referred to as the Annex) published in 2021 states that "an aspect of an organization's overall business strategy that lays out a set of targets and actions supporting its transition toward a low-carbon economy, including actions such as reducing its GHG (greenhouse gas) emissions."[6] In addition, companies that meet the following conditions should develop transition plans:

- Companies that have made GHG emissions reduction commitments
- Companies which operate in jurisdictions that have made such commitments
- Companies that have agreed to meet investors' expectations regarding emission reductions

Currently, Japan is advocating a carbon neutrality target by 2050, along with many other developed countries. In recent years, major developing countries have also set similar targets (although achievement dates differ). Therefore, according to the TCFD definition, most companies that conduct business not only in Japan but also in major countries around the world would be expected to formulate transition plans. As of August 2024, 1,230 Japanese companies have established or committed to establishing GHG emission reduction targets under the SBT Initiative. According to the TCFD definition above, these companies are committed to emission reductions and should consider establishing transition plans.[7] In addition, companies listed on the Prime Market of the Tokyo Stock Exchange, which are required to implement climate-related disclosures based on the TCFD recommendations or an equivalent framework, and therefore companies undertaking dialogue with investors in global markets should also consider formulating transition plans.[8] Furthermore, from the perspective of addressing the entire value chain, it is desirable to include in the plan efforts on reaching out to suppliers and customers in addition to affiliate companies in the plan.

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[6] TCFD, 2021, Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures

[7] As of 6 August 2024. This is the second highest figure after the United Kingdom. (SBT Website, https://sciencebasedtargets.org/companies-taking-action viewed on 6 August 2024)

[8] Supplementary Principles 3.1.3 of the Corporate Governance Code

(2) Definition of Transition Plan in IFRS Sustainability Disclosure Standards (S1, S2)

The transition plan is also mentioned in IFRS Sustainability Disclosure Standards (IFRS S2: Climate-related disclosures) published in June 2023. IFRS S2 defines the transition plan as "an aspect of an entity's overall strategy that lays out the entity's targets, actions or resources for its transition towards a lower-carbon economy, including actions such as reducing its greenhouse gas emissions" which is almost identical to the description according to TCFD.[9] Therefore, like TCFD, IFRS S2 maintains that the transition plan is oriented to a low-carbon and decarbonized society, and that the actions and investment plans envisaged for how the company will transition to such a society are to be formulated in line with corporate-wide business strategy.

Unlike TCFD, IFRS S2 requires companies to disclose transition plans if they have them. However, whether companies should disclose the requirements in IFRS Sustainability Disclosure Standards depends on whether they consider them as being material. IFRS S1 (General Requirements) states that "An entity need not disclose information otherwise required by an IFRS Sustainability Disclosure Standard if the information is not material. This is the case even if the IFRS Sustainability Disclosure Standard contains a list of specific requirements or describes them as minimum requirements". Therefore, IFRS Standards require companies to disclose information when they consider it material.[10] For companies that are required to develop transition plans based on the TCFD recommendations, it is natural to consider that a "set of targets and actions supporting its transition toward a low-carbon economy" as material information. Therefore, it can be interpreted that disclosure of transition plans based on the TCFD recommendations is also required from the perspective of IFRS Sustainability Disclosure Standards.[11]

[9] IFRS Sustainability Disclosure Standards Climate-related Disclosure (IFRS S2). The same definition is used by the Sustainability Standards Board of Japan (SSBJ) in the Exposure Draft of Japanese Climate-related Disclosure Standards based on IFRS S2 currently under consideration.

[10] IFRS Sustainability Disclosure Standards, General Requirements for Disclosure of Sustainability-related Financial Information (IFRS S1) Appendix B

[11] "…when disclosing narrative information, each company should decide the order and number of explanations, etc., regarding each individual issue, event, etc., in accordance with the importance (materiality) that those individual issues, events, etc., will have on its corporate value, operating results, etc." (Financial Services Agency, 2019, Principles Regarding the Disclosure of Narrative Information)

(3) Contents Required for Transition Plans

The contents of transition plans recommended by TCFD are classified into four themes: governance, strategy, risk management, and metrics and targets. These are described in Figure 1.

Governance		Strategy	
• Board or committee approval • Board or committee oversight • Assignment of appropriate responsibilities and resources necessary for effective execution • Alignment with remuneration and other incentives	• Regular reporting to the board or committee • Periodical reviews and updates • Reporting to external stakeholders • Independent review or third-party assurance	• Alignment with strategy • Organization's assumptions, particularly around transition pathway uncertainties and implementation challenges	• Maximizing prioritized opportunities • Relations between short- / medium-term plans and GHG emissions • Financial plans, budgets, and related financial targets • Achievability test using multiple climate-related scenarios
Risk Management		**Metrics and Targets**	
• Risks that the organization faces from a transition to a low-carbon economy	• Assumptions, uncertainties, and challenges the organization faces in successfully executing its transition plan	• Metrics to monitor progress against plans and targets • Quantitative and qualitative targets based on climate science	• Metrics and targets are based on widely recognized and transparent methodologies • Specifying dates / time horizon • Plans for GHG emission reductions

Figure 1 Elements of Transition Plans Recommended by TCFD

Source: Adapted from TCFD, 2021, Guidance on Metrics, Targets, and Transition Plans

The TCFD also identifies the following characteristics of an effective transition plan: (1) aligned with strategy, (2) anchored in quantitative elements, (3) subject to effective governance processes, (4) actionable, specific initiatives, (5) credible, (6) periodically reviewed and updated, and (7) reported annually to stakeholders.[12] From the above, it can be said that what should be described in a transition plan according to TCFD publications seems to be more specific than the early forms of TCFD disclosure, but it does not deviate from the recommendations. However, since the publication of guidance on transition plans by TCFD in 2021, various initiatives and discussions on the subject have been launched. At the same time, advanced companies have been disclosing their transition plans and promoting dialogue with investors. This guidebook not only traces the transition plan description in TCFD publications, but also considers such recent trends.

[12] TCFD, 2021, Guidance on Metrics, Targets, and Transition Plans, and TCFD, 2021, Implementation of the Recommendations of the Task Force on Climate-related Financial Disclosures

(4) Transition Plans in Other Frameworks

As mentioned above, frameworks and initiatives related to transition plans have been published not only by TCFD and IFRS, but also by other organizations. These are listed in Table 1.

Table 1 Major Initiatives Related to Transition Plans in Recent Years

Organizations	Summary
Accelerate Climate Transition (ACT)	• An initiative established by ADEME (French Agency for Ecological Transition) and CDP to provide benchmarks and indicators for transition. • It consists of two services: "ACT by Step by Step," a tool for companies that have just started working on a low-carbon strategy, and "ACT Assessment," a verification tool for companies with transition plans.
CDP	• A technical note on transition plans was published in 2022 (revised in 2023). It describes how organizations that disclose information through CDP can demonstrate that they have a credible transition plan in place. • Requirements for a credible transition plan include: supporting global transition to 1.5°C, verifiable and quantifiable KPIs, integration with mainstream filings. In this document, comparison with other frameworks and mapping of those elements to the questions in the CDP Climate Change Questionnaire are shown.
Climate Action 100+	• The Net Zero Company Benchmark was published in 2021 (revised in 2023). It defines key indicators to assess business alignment with the Paris Agreement goals towards net zero emissions. The evaluation was conducted by TPI upon request of CA100+. • 11 indicators have been set, including the ambition to achieve net zero by 2050, short- and medium-term targets, decarbonization strategy, and TCFD disclosure.
Glasgow Financial Alliance for Net Zero (GFANZ)	• The Glasgow Financial Alliance for Net Zero, an initiative launched at COP26 in 2021, aims to align financial institutions' investment and loan portfolios to net zero by 2050. • It encourages asset owners and asset managers to develop transition plans, and announced a framework for this purpose in 2022.
Transition Pathway Initiative (TPI)	• An initiative led by asset owners. • It presents a method of ranking into 6 levels (Unaware, Awareness, Building capacity, Integrating into operational decision-making, Strategic assessment, Transition planning and implementation) with a Management Quality Framework comprised of 23 questions.
Transition Plan Taskforce (TPT)	• An initiative established to establish best practices for corporate transition planning and general and sector-specific disclosure and indicator guidance. • In collaboration with GFANZ (described above), a disclosure framework similar to GFANZ recommendations was proposed for non-financial companies in 2023 (described below).

Source: ACT, 2019. Assessing low Carbon Transition Framework, CDP, 2023, Technical Note: Reporting on Climate Transition Plans, CA100+, 2023, Net Zero Company Benchmark Disclosure Framework Assessment Methodology V2.0, GFANZ, 2022, Financial Institution Net-zero Transition Plans: Fundamentals, Recommendations, and Guidance, TPI, 2023, TPI's methodology report: Management Quality and Carbon Performance, TPT, 2023, TPT Disclosure Framework

The most notable of these initiatives are GFANZ and TPT. These are described below.

GFANZ, which was launched in 2021, requires financial institutions such as asset owners, asset managers, and banks to commit to net zero targets for their investment, loan, and underwriting portfolios. TPT, which was launched the following year in 2022, discusses transition plans for non-financial institutions and announced a disclosure framework in July 2023. The transition plan disclosure framework of TPT is very similar to that of GFANZ for financial institutions. This is shown in Figure 2.

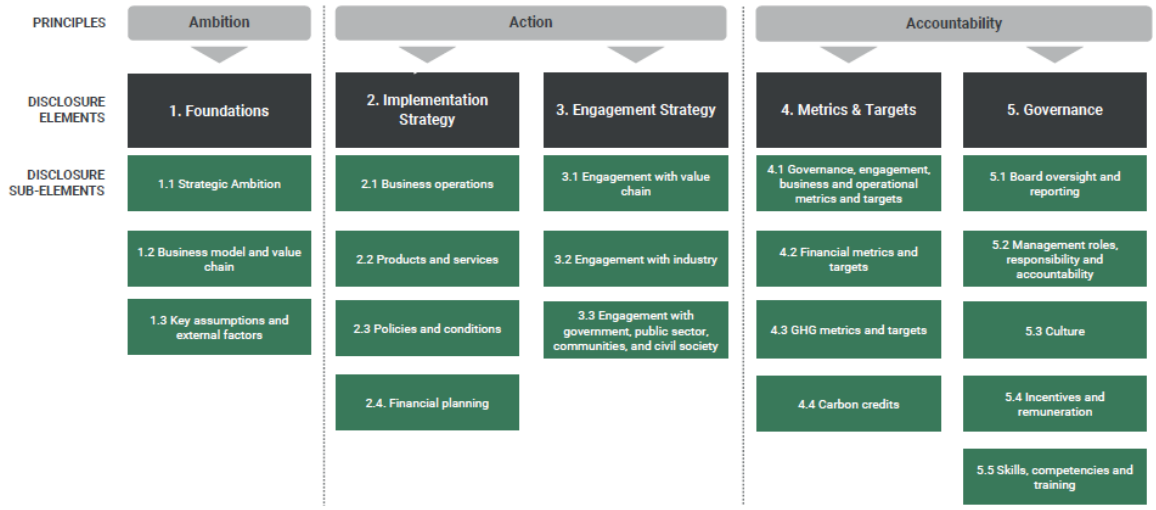


Figure 2 TPT's transition plan disclosure framework

Source: TPT, 2023, The TPT Disclosure Framework

The framework of the TPT has some themes in common with the TCFD recommendations, such as "governance" and "metrics and targets," but it also has sub-items different from the TCFD recommendations, such as "culture" in "governance." In addition, the "strategy" theme of the TCFD recommendations is divided into "implementation strategy" and "engagement strategy." A major difference between the TCFD and TPT recommendations is that the latter requires disclosure not only on the value chain but also about its own industry, government, and citizens. In addition, the TPT framework lists entity's ambition to reduce its GHG emissions (e.g. to net zero), which suggests a directionality to net zero targets.

According to the TPT, the TCFD recommendations on risk management and the GFANZ/TPT, which describe the ideal transition plan, are positioned to complement each other while having common elements (Figure 3). In other words, the framework of the TCFD recommendations is used to identify, assess, and manage climate-related risks and opportunities, and the TPT framework is used to implement initiatives for transition.

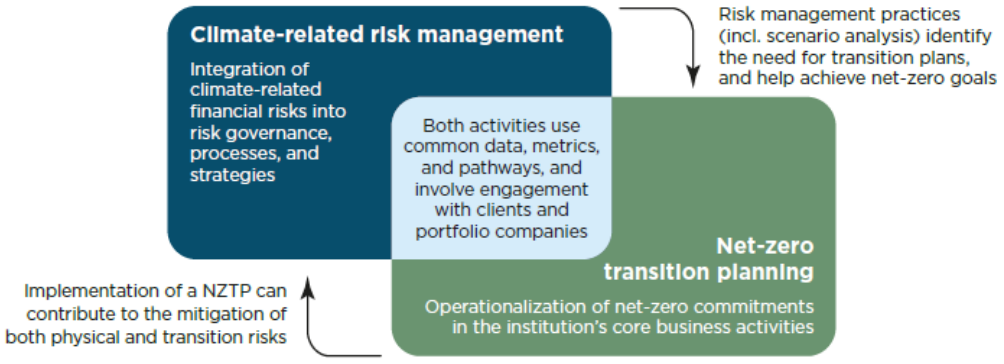


Figure 3 Relationship between the TCFD recommendations and the transition plan in the TPT

Source: GFANZ, 2022, Expectations for Real-economy Transition Plans

(5) Domestic Initiatives

① "Transition Strategy" in the GX League

The "GX League" was established in 2022 with the support of companies and began full-scale activities in 2023 with the participation of companies. The GX League states that participating companies are required to declare carbon neutrality by 2050 and to formulate and announce their own transition strategies to achieve it. Participating companies are required to set their own emission reduction targets and conduct emissions trading according to their level of achieving the targets. The transition strategy in the GX League is considered to include (1) the target year for carbon neutrality, (2) the independently determined domestic reduction target in the GX-ETS or quantitative reduction target for fiscal 2030, (3) specific measures with time limits, and (4) the governance system for implementing the strategy. [13] Recommendations for the transition strategy include (1) specificity and ambition, (2) feasibility, and (3) transparency. Among these, feasibility is defined as the alignment with the medium-term management plan and other management strategies and business plans, and transparency is defined as the disclosure of the transition strategy consistent with the existing framework. It is also recommended to include measures in the supply chain. The transition strategy in the GX League can be said to be consistent with the transition plan described in the TCFD and IFRS S2. However, while the former focuses on demonstrating that measures for decarbonization can be implemented as part of achieving Japan's goals, the latter focuses on explaining how to transition to decarbonization in the process of increasing the value of companies operating globally.

② "Climate Transition Strategy" in the Basic Guidelines on Climate Transition Finance

The Basic Guidelines on Climate Transition Finance, published by the Financial Services Agency, the Ministry of Economy, Trade and Industry, and the Ministry of the Environment in 2021, list four disclosure elements required of companies attempting to procure transition finance, such as transition bonds, to support efforts toward realizing a decarbonized society: (1) fundraiser's climate transition strategy and governance, (2) business model environmental materiality, (3) climate transition strategy to be science-based including targets and pathways, and (4) implementation transparency. Here, it is recommended that the strategy and governance of an issuer that raises funds be linked to its management strategy and business plan, including medium-term management plans. [14]

In view of the above, it can be said that the Climate Transition Strategy also refers to the aforementioned elements of transition plan such as transition to a low-carbon, decarbonized society as well as alignment with business strategy, and is consistent with the transition plan in the disclosures according to the TCFD Recommendations. The Climate Transition Strategy is

[13] GX League, 2023, Guidance on initiatives required of GX League member companies (in Japanese)

[14] Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment, 2021, Basic Guidelines on Climate Transition Finance

described from the perspective of financing such as transition bonds, but it does not emphasize how to maximize corporate value in the transition process to a decarbonized society. However, one of the objectives stated in the "Follow-up Guidance" released in 2023 is to "steadily implement the transition strategy after procurement of transition financing and contribution to the improvement of corporate value," which has the same aim as the transition plan proposed in this guidebook.[15]The "Follow-up Guidance" also discusses sector-specific characteristics of transition finance that financial institutions (information users) should take into account. It is desirable that such information is referred to as a viewpoint of information users when formulating a transition plan.

In this way, discussions on transition plans are taking place in parallel with discussions on the provision of funds to companies, and formulating a transition plan that is convincing and persuasive to financial institutions will contribute to the improvement of corporate value and financing. In this sense, the concept of transition plans in this guidebook is consistent with the "transition strategy" in the GX League and the "climate transition strategy" in the Basic Guidelines on Climate Transition Finance, and interoperability is ensured.

[15] Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment, 2023, "Follow-up Guidance on Transition Finance: Toward Better Dialogue with Fundraisers" (In Japanese)

2. Basic Concepts of Transition Plan

The TCFD Consortium has held on a regular basis meetings of the Steering Committee to discuss the operational policies of the consortium, as well as "roundtables" participated by financial institutions and non-financial companies. Through these meetings, exchange of opinions and sharing perceptions on the disclosure and utilization of climate-related information were fostered. Transition plans are frequently taken up in the activities of the TCFD Consortium, and the three basic concepts of transition plans mentioned above - "transition to a low-carbon, decarbonized society," "alignment with business strategy," and "reaching out to others" - can be said to depict the current shared understanding of transition plans between financial institutions (those utilizing information) and business companies (those disclosing information). These are discussed below.

(1) Basic Concept (1) Transition to a low-carbon, decarbonized society

As indicated in the definitions of transition plan in the Annex to the TCFD Recommendations and IFRS S2, transition plan includes, "a set of targets and actions supporting its transition toward a low-carbon economy" or "entity's targets, actions or resources for its transition towards a low-carbon economy". Thus, transition plans have the directionality of aiming at a low-carbon, decarbonized society as compared with the original notion of TCFD disclosure. As Japan has set a target of reducing GHG emissions by 46% from the 2013 levels by 2030 and achieving carbon neutrality by 2050, it can be interpreted that the "low-carbon, decarbonized society" envisioned by companies operating in Japan when considering transition plans will be consistent with these goals.

As described later, there are various definitions of carbon neutrality and how to achieve it, and while the climate goals of the countries should be referenced by companies located in such countries, they need not necessarily coincide. However, companies are required to consider what a "low-carbon, decarbonized society" in which they operate would be, and consider such society as something to be realized. Based on this, companies would identify their position in that society, and continue efforts to maximize corporate value. Disclosing how companies think the impact of a low-carbon, decarbonized society is related to the improvement of corporate value will lead to improved understanding of companies by investors.

(2) Basic Concept (2) Alignment with Business Strategy

An important element required in transition plans is "alignment with business strategy," which is also included in the definitions of transition plan in TCFD and IFRS S2. If the transition plan only describes how the company will move toward decarbonization, it may diverge from

the information that investors which expect profits by increasing corporate value wishes to obtain. In addition, if a company's future vision in its medium-term management plan and the business model and time horizon described in the transition plan are different, it may undermine the credibility of the company's efforts.

In many cases, a company's management plan covers the next few years, which is often shorter than the time horizon envisaged in the transition plan to achieve a low-carbon, decarbonized society (e.g., in 2050). Therefore, a company's management plan does not need to include the realization of a low-carbon, decarbonized society. However, if a company's management plan includes investments in facilities with large GHG emissions or in manufacturing facilities for products whose positioning in a low-carbon, decarbonized society is questionable, and if the amount of such investments is large and the payback period and useful life are long, it is necessary to give a through consideration on their alignment with the transition plan.

Financial institutions are also demanding such alignment with business strategy. There is a growing recognition that the role of financial institutions in the transition to a low-carbon, decarbonized society is to earn returns in the process of realizing the transition to decarbonization by investing in companies that are active in decarbonization or to companies with promising carbon-neutral technologies, as well as to earn profits in the process of supporting the realization of the transition of society as a whole by actively providing loans to support companies in their decarbonization. As will be discussed later, since both the business environment of companies and climate change measures at their home countries and overseas are subject to change, the transition plan should be updated based on these factors.

(3) Basic Concept (3) Reaching out to Others

The production of goods with low life-cycle emissions requires the procurement of raw materials with low GHG emissions. On the other hand, even if products with low emissions during use are produced, they will not be effective unless they are accepted by customers and consumers. Therefore, the transition to a low-carbon and decarbonized society can only be achieved not merely by the efforts of individual companies, but also may require working actively with other entities if necessary. As mentioned above, the transition plan recommended by the TCFD is required to include a "set of targets and actions supporting the company’s transition to a low-carbon economy."

Such support for the transition can include initiatives through corporate value chains beyond engaging with investors such as lobbying the government to implement policies to ensure the achievement of goals, reaching out to consumers to change consumption behavior, etc. Therefore, it is expected that the "set of targets and actions supporting the company’s transition to a low-carbon economy" include how the company will reach out to others (value chains, governments, the general public, etc.) to achieve the emission reductions it envisions.

Such activity by itself may not bring about to the realization of a low-carbon and decarbonized society, but it can serve as a factor for indicating the company's attitude toward achieving the goals included in the transition plan to investors and others and being evaluated. In the case of companies operating in Japan, it is possible to include the following, for example shown in Table 2.

Table 2 Examples of lobbying others

Value chain	• Engagement with suppliers • Engagement with customers
Government	• Participation in government initiatives such as the GX League • Discussion on the implementation of policies that support the dissemination of products that contribute to the realization of a low-carbon, decarbonized society
General citizens	• Various educational activities, including those related to regional symbiosis
Other companies in the industry and industry associations	• Reaching out to other companies in the industry • Initiatives through industry associations

Source: TCFD Consortium

The above-mentioned GFANZ and TPT frameworks further promote this "reaching out to others" and recommend the preparation of transition plans including "engagement strategy." The disclosure of engagement strategy required by GFANZ and TPT can be explained from the perspective of how to direct others to achieve the transition to a low-carbon and decarbonized society. On the other hand, the TCFD Consortium's discussions on the transition plan call for "reaching out to others" for the purpose of enabling factors (technologies, policies, etc.) that would be difficult for a company to achieve on its own in order to realize both the maximization of corporate value and the realization of a low-carbon, decarbonized society. Although there are many elements in common between the two, the degree of proactiveness is not identical.

Chapter 3 How Companies can Formulate Transition Plans

Based on the basic concept of transition plans described above, this chapter discusses the role of transition plans for companies, including how to proceed with the formulation. Specifically, the following items are described below.

- Companies that should formulate transition plans
- Timing of formulation
- Organizational structure for formulation
- Contents to be included in transition plans
- Methods of disclosure

Other points to be noted include the description of intermediate milestones and the diversity of projected low-carbon and decarbonized societies.

1. Companies that should formulate transition plans

As mentioned above, the TCFD requires to companies that have committed to reducing emissions or are located in such regions to develop transition plans. In addition, the IFRS Sustainability Disclosure Standards emphasize materiality in disclosure and do not require companies to disclose items that they do not consider as being material. In other words, description of TCFD and IFRS Standards implies that companies that should disclose transition plans are those that consider climate change as being material. Japan has formulated a 2050 carbon neutrality target. In view of the significant transformation in energy mix and lifestyle which need to take place in order to realize the target, companies operating in Japan will need to disclose their transition plans or at least consider the necessity of disclosure. On the other hand, as discussed later, some service industries are expected to have low Scope 1 to 3 emissions and their products (services) are not likely to be affected by climate change, and in such industries, the development of transition plans may not be at least a priority issue.[16]

It should be noted that while climate change could be an important issue for small and medium-sized enterprises (SMEs), the task of disclosure could be generally cumbersome to such companies which may find it difficult to comply with all the TCFD recommendations. Therefore, for small enterprises with a heavy burden of disclosure, transition plan should be disclosed when it is considered possible in the future. On the other hand, since measures across the value chain such as disclosure of Scope 3 emissions are being required, it is desirable for these companies to consider the necessity of disclosure after carefully measuring the materiality to the company, since disclosure of the transition plan may lead to the expansion

[16] For example, human capital may be more important than climate-related capital for the medical industry. Also, climate change measures also entail trade-off with the protection of natural capital, and companies that emphasize TNFD disclosure should pay particular attention to this issue.

of business opportunities in addition to the transition to a low-carbon, decarbonized society.[17]

Since the elements included in the transition plan are an extension of the TCFD disclosure, it is suggested that companies that are in the early stages of climate-related disclosure should prioritize disclosure in line with the TCFD recommendations before moving on to the transition plan. As disclosure becomes more detailed and resourceful for companies with large climate-related risks and opportunities, individual items may become detached and appear less relevant to each other. It can be understood that the transition plan is a brief summary of the above-mentioned information and clarification of how to balance the transition to a low-carbon, decarbonized society with value creation.

2. Timing of Formulation

For companies that have just started to disclose, the amount of information contained in their TCFD disclosure is small and the disclosure is in the process of being enhanced. Therefore, there is little need to disclose the transition plan, which describes the relationship between the four themes of TCFD disclosure and business strategy as an independent publication. However, as mentioned above, as the amount of information in disclosure increases, it may become difficult to see the interrelated nature of the four themes of TCFD recommendations. At such a stage, disclosure of the transition plan in a form that consolidates the contents of TCFD disclosure and clarifies the relationship between them and business strategy becomes useful for investors. In addition, as the content of disclosure become more detailed, the proportion of information handled by sustainability-related departments of companies will increase, and there is a possibility that the involvement of management and corporate planning-related departments will decrease in the consideration of disclosure contents. Therefore, the formulation of transition plans, which alignment with business strategy is emphasized and investor interest is high, provides opportunities for collaboration between sustainability-related departments and departments directly connected to management, such as corporate planning, IR, and finance departments.

In light of the above, it can be said that it is natural for stand-alone transition plans to be disclosed at a relatively advanced stage in the climate-related disclosures of companies. As mentioned above, since it is expected that transition plans show how a company's climate change measures are linked to its business strategy, they are deeply related to a company's business strategy. In this sense, in the course of advancing TCFD disclosure, when management determines that climate-related risks and opportunities are material, it is desirable to enhance the disclosure step by step with the participation of management from the early stages of TCFD disclosure with a view to formulating a transition plan in the future, from the perspective of creating a backbone that runs through the four themes of TCFD: governance, strategy, risk

[17] Addressing the TCFD recommendations for SMEs are described in TCFD Consortium, 2022, Guidance on Climate-related Financial Disclosure 3.0 (TCFD Guidance 3.0).

management, and metrics and targets,. It is preferable to consider transition plans with the participation of management from such an early stage so that a company's TCFD disclosure is aligned with the company's business strategy.[18]

3. Organizational Structure for Formulation

Since transition plans are defined as an aspect of business strategy in TCFD and IFRS S2, and this guidebook lists "alignment with business strategy" as an important basic concept of transition plans, the formulation of transition plans requires the involvement of management planning-related departments, etc., more than TCFD disclosures considered to date. In addition, under the current situation where the framework of transition plans is still fluid and there is a divergence between what is published by TCFD and IFRS and what is published by GFANZ / TPT, it can be assumed that the image of transition plans expected by investors will differ. Under such a situation, it is important to consider the importance of transition including the management and the board of directors, and to be able to receive feedback on investor opinions through engagement, with the involvement of IR and finance departments in the formulation of transition plans.

In addition, it is assumed that the low-carbon and decarbonized society envisioned in many transition plans will require energy sources and manufacturing processes that are significantly different from those of the present, and that companies will not be able to come up with measures to achieve such a society. In addition, while scenarios leading to such a society are diverse, it is assumed that in-house knowledge about the details of these scenarios may be lacking. In order to respond to this situation and formulate a well-balanced transition plan, it is desirable to collaborate with outside parties through industry-wide initiatives and value chains. It is also desirable to involve outside directors and external experts in acquiring knowledge on scenarios and technical issues.

In light of the above, formulation of a transition plan inevitably requires consideration involving multiple internal departments and supply chains such as customers and suppliers, and the exchange of opinions is enhanced in the process of rethinking company-wide and across value chains on how decarbonization can be realized.

[18] "In order to reflect discussions at the board of directors and the Executive Committee to narrative information, management should be actively involved in examining disclosure details from an early stage of preparation of disclosure document, and indicate policies regarding disclosures within the company." (The Financial Services Agency, 2019, Principles Regarding the Disclosure of Narrative Information)

4. Contents to be included in the transition plans

In this guidebook, the basic concepts of the transition plan are proposed to be (1) transition to a low-carbon, decarbonized society, (2) alignment with business strategy, and (3) reaching out to others. Looking at these in detail, the elements that may be disclosed in the transition plan include those in Table 3. As is the case with TCFD disclosure, it should not be taken to mean that a transition plan requires all of the following items to be disclosed; it can be envisaged that disclosure is enhanced in stages. It is also possible to refer to other documents for detailed descriptions, such as those with respect to scenarios.[19]

Table 3 Elements that may be included in the transition plans

Theme of TCFD recommendations	Factors that may be included in the transition plan
Governance	● Measures taken by management and supervision by the board of directors regarding the transition plan, which indicates the level of corporate commitment (1) ● Business strategy and transition plan formulation, implementation and review cycle based on implementation status and risks, as well as organizational structure related to these (e.g., coordination with other departments e, g, the finance department) (2) ● Determination of entities to be approached, based on the overall supply chain (3) ● Assessment, monitoring of effects, and review of the transition plan (2)
Strategy	● Low-carbon and decarbonized society envisaged (policies such as energy consumption/emission patterns and carbon pricing in the region where the project will be implemented) (1) ● Scenario which forms the basis, key assumptions,[20] sectoral roadmaps, etc. (1) ● Business strategy to be referenced (medium-term management plan, long-term vision, etc.) (2) ● Future vision of the company based on the underlying scenarios (Include as much as possible about business domain, expected products, revenue scale, etc.) (2) ● Financing policy (2)
Risk management	● Monitoring of emissions by the company, region, and sector (1) ● Assumptions of the transition plan and implementation of the current situation / monitoring of the status of discrepancies (1) ● Monitoring and assessing risks related to discrepancies between business strategy and transition plan (2)
Metrics and targets	● Corporate climate-related targets (company's Scope 1 to 3 emission targets, or metrics and targets for manufacturing low-emission products. In the latter case, it is desirable to include a description of how it contributes to the goals of society as a whole). (1) ● Major milestones and interim targets (Scope 1 to 3 emissions) (1) ● Metrics and targets related to the company's business areas consistent with climate-related targets (future state of products, raw materials, processes, etc.). (1) ● Measures required, capital allocation and timing, assumed scale of each business, expected earnings, etc. (2) ● External factors necessary to achieve the above corporate vision, and activities to achieve it (3)[21] ➢ In the case of companies whose transition depends on policies, such as those in industries where emissions reduction is generally considered difficult (hard-to-abate industries), outreach by companies and industry associations to the government, etc. ➢ In the case of companies with a significant proportion of Scope 3 emissions, outreach to suppliers and customers to reduce emissions in major categories
Others	● Messages and comments by the CEO and other top management (1)

[19] However, it should be noted that the disclosure of transition plans itself is positioned as a step following enhancing TCFD disclosure.

[20] It is defined as "Beliefs, expectations, hypotheses or assumptions" in the Sustainability Standards Committee's proposed climate-related disclosure standards.

[21] This corresponds to "dependency relationships" defined as "factors and conditions that are essential to the realization of a company's transition plan" in the proposed standards above.

Theme of TCFD recommendations	Factors that may be included in the transition plan
Additional elements that contribute to credibility and transparency	● Specific approaches such as engagement with the entities to be approached, in view of the entire supply chain described above (Progress, etc., if implemented) (3) ● Utilization of metrics such as emission reduction effects in the entire supply chain, such as emission reduction contribution (1) ● Formulation of emission reduction pathways using internal carbon pricing (1)

Source: TCFD Consortium

(1), (2), and (3) in the table correspond to the basic concepts of the transition plan: (1) transition to a low-carbon, decarbonized society, (2) alignment with business strategy, and (3) reaching out to others.

As can be seen above, the elements that should be disclosed in the transition plan are mainly the items under the "Strategy" and "Metrics and Targets" among the TCFD recommendations and fall within the categories of the transition plan proposed by the TCFD shown in Figure 1. However, especially for companies with detailed and extensive disclosures, there is a possibility that the descriptions of the individual items appear detached from each other, and that their interrelationship may appear weak. It can be understood that the transition plan is a concise summary of the above and a restatement of the "Business strategy for decarbonization and what to do to achieve it."

5. Methods of Disclosure

Regarding the disclosure of transition plans, it is noted that some progressive European companies and institutional investors have published transition plans of dozens of pages in alignment with detailed provisions such as the GFANZ and TPT frameworks, separately from the TCFD disclosures. However, based on the discussions in the TCFD Consortium, the prevailing view among current investors is that the document does not necessarily need to be separate from other climate-related disclosures. If the elements necessary for the transition plan are included in the TCFD disclosure of a company, it can be considered as a transition plan.

6. Other Issues

(1) Description of intermediate milestones

As mentioned above, many countries including Japan set their targets for low-carbon and decarbonized societies in 2050 or thereafter, which is further into the future than the time horizon of corporate management plans and recovery of capital investment. However, many countries including Japan have intermediate targets such as for the year 2030, which include more specific measures and conditions (energy mix, etc.) and policies (carbon pricing, etc.) compared with the 2050 target. When considering transition plans that are consistent with business strategies, it is necessary to take these intermediate targets into account and describe the intermediate image of companies and key indicators that should be achieved.

Many companies, especially those in the machinery manufacturing industry, have more

than half of their sales outside Japan. Such companies are required to refer to the plans of not only Japan but also the overseas countries that are their markets. Each country submits a plan based on the Paris Agreement and updates it every five years with more progress, as well as biennial progress reports. It is desirable to refer to these plans.[22]

(2) Diversity of Projected Low-carbon and Decarbonized Societies

When formulating a transition plan, it is important to consider what kind of low-carbon and decarbonized society the company envisions. In the case of Japan and many other developed countries, this translates to the target of "carbon neutrality by 2050." However, as mentioned above, there are various forms of carbon neutrality, and individual business models cannot be completely excluded. For example, the usage of fossil fuels in a carbon-neutral society will vary greatly depending on the assumption of CO2 sequestration by CCS and forests.[23] Therefore, there may be cases where fossil fuels are involved in the company's business model or the possibility that the transition to a carbon neutral society may require a change in the business model, but these do not necessarily mean a complete change in the business model itself.[24] However, most of the scenarios envision a future in which the consumption of fossil fuels will decrease and the proportion of renewable energy and hydrogen through energy transformation will increase significantly.

[22] For national plans under the Paris Agreement, refer to the NDC Registry (https://unfccc.int/NDCREG). With respect to reporting progress, refer to the Biennial Transparency Report (BTR), whose first editions are to be submitted by the end of 2024.

[23] See TCFD Consortium, 2021, Green Investment Guidance 2.0, Addendum A.

[24] This includes not only the extraction and use of fossil fuels but also the manufacture and sale of products (or their components) that consume fossil fuels.

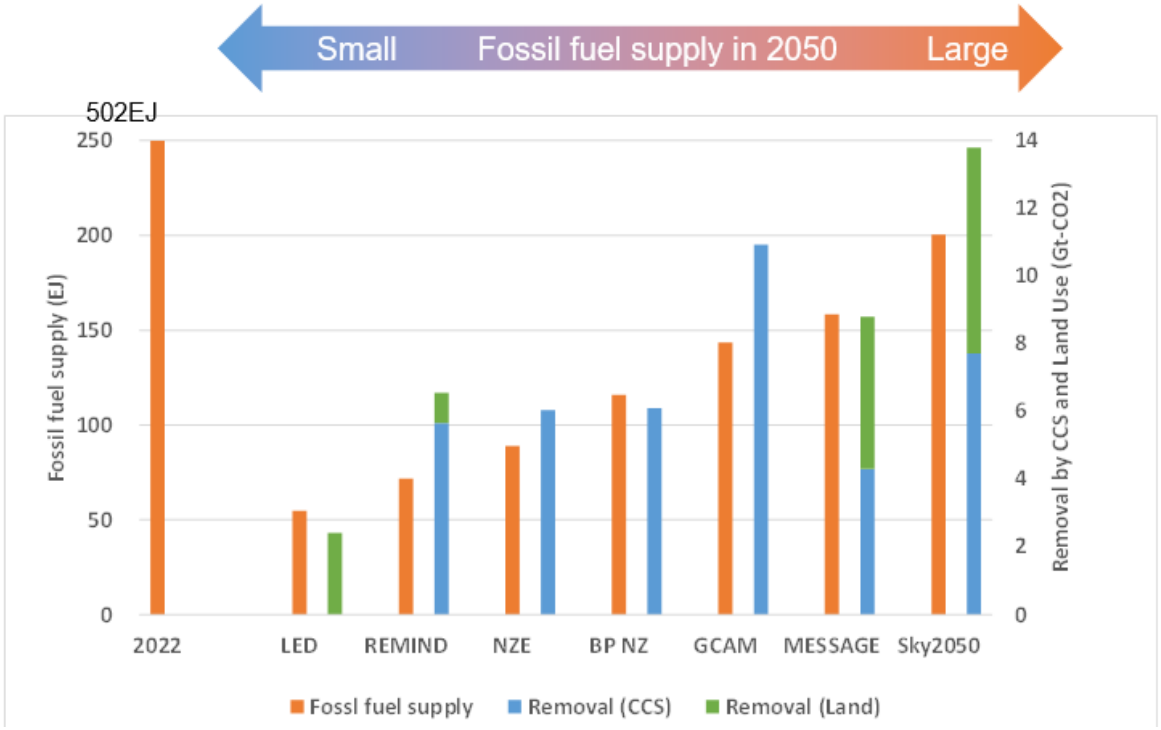


Figure 4 Various views envisioned of carbon neutral scenarios (Fossil fuel supply and CO2 sequestration in 2050)

Source: Based on Gruebler et al., 2018 (LED), IEA World Energy Outlook 2023 (2022, NZE), NGFS Scenarios ver4.2 (MESSAGE, REMIND, GCAM), BP Energy Outlook 2023, Shell Energy Security Scenarios (Sky2050)

As mentioned above, the shape of carbon neutral society will vary greatly depending on the scenario. It is also possible that it will change significantly in the future due to changes in technological development and policy trends. In order to consider how a company's business model stays viable under such uncertainty, it is necessary for companies to consider the image of a carbon neutral society, and to continuously make efforts to understand how to expand from its existing business model (such as the application of technologies used in conventional products) on a company-wide basis.

It is not strictly necessary that the emission reduction pathway of the world as a whole or the region in which one operates is identical to that of the company. It is also possible that a company that manufactures products that contribute to global emission reductions will expand its business as a result of the transition to a low-carbon, decarbonized society, and as a result, its emissions will increase. In such cases, it is considered useful to disclose the amount of emission reduction contribution through the company's products.

(3) Consideration of Characteristics by Industry and Region

The status of GHG emissions by companies varies depending on the specific situation, such as industry and region, and the pathway of emission reduction also differs for each industry. Hard-to-abate industries, such as energy, steel, and transportation, are generally capital-

intensive and have long useful lives, and in many cases alternative processes have not necessarily reached a stage where they can be introduced technologically or economically. In addition, much of the emissions in the entire value chain of these industries are attributable to their own companies. When companies in these industries pursue decarbonization, they need to align it their strategy on the timing of capital investment and the timing of future business operations. In many cases, policy support and guidance are necessary for the transition, and in this sense, "reaching out to others" in the form of dialogue with the government etc. will be important.

In contrast, machinery manufacturing, construction, and food industries are characterized by a high proportion of Scope 3 emissions, and the situation is different from the above industries. Of the Scope 3 emissions, Category 1 (purchased goods and services) accounts for a high proportion of raw material production, and Category 11 (use of sold products) accounts for a high proportion of purchases and use by customers, both external factors. Therefore, engagement with suppliers and customers become important elements. For example, the food industry is characterized by a high proportion of Category 1 emissions, and engagement with suppliers will be important.

In the tertiary industries such as wholesale, retail, and service industries, Scope 1 and 2 emissions are generally small compared to the size of the company, and Scope 2 emissions from electricity consumption are the major source of emission of the company. Therefore, the main means of emission reduction are often the purchase of zero-emission electricity such as renewable energy, and energy (electricity) conservation. However, some financial institutions and retailers have large Scope 3 emissions through investments, loans, and product procurement, and it is assumed that large companies among them can wield a sizeable degree of influence in the transition to a low-carbon, decarbonized society. Such companies will be greatly affected by the transition to a low-carbon, decarbonized society. Therefore, it is necessary to consider the formulation of transition plans from the perspective of how to maximize corporate value in such circumstances.

The nature of transition plans can also vary depending on the region in which the company operates. One of the reasons for such regional differences is that the targets for emission reduction differ according to the country or region in which the company operates, and the measures that can be implemented also vary. It is possible that, in some countries, it may be difficult to obtain necessary resources such as renewable energy, or sales of the company's products that contribute to a low-carbon, decarbonized society may stagnate due to lack of progress in emission reduction in these areas. In such cases, transition in emissions and measures taken by companies operating in such regions may appear to be lagging behind those of companies operating in countries or regions that are active in climate change countermeasures. In such a case, it is desirable to indicate that the company is always aware of the latest trends in the country's targets and measures, and that it is actively engaging in dialogue with the government of the country concerned to achieve its own targets. The

transition plan for companies operating in these areas may differ from those operating in regions where it is easy to promote advanced measures. In such cases, it is desirable that their transition plans show how the companies are approaching the governments and value chains of the target region, taking into account the characteristics of each industry and region described above.[25]

(4) Need for a Third-Party Assurance

The need for third-party assurance of climate-related disclosures is still under debate. TCFD maintains that disclosures do not require independent external assurance, but that disclosures should be subject to the same or substantially similar internal governance processes as those used for financial reporting.[26] Therefore, according to the TCFD Recommendations, obtaining third-party assurance are deemed desirable though not mandated, and the same principle should apply to transition plans. Since transition plans are part of climate-related disclosures, it can be interpreted that third-party assurance covering only transition plans is not required at present. However, there is a trend to require third-party assurance for corporate disclosures in the future, and the situation regarding third-party assurance may change in the future.[27]

(5) Review of Plans

The word "plan" suggests a specific description of measures and milestones to be taken against clearly defined goals to be achieved. However, climate change is a long-term issue, and there is a great deal of uncertainty regarding how it can be eventually solved. Therefore, plans to deal with this will inevitably have limitations in specifics and will entail uncertainties. In addition, the shape of a low-carbon and decarbonized society may vary greatly depending on the measures to be achieved, and may not be realized due to various factors. Since companies' medium-term management plans are regularly reviewed at intervals of several years, it is desirable to review transition plans at similar intervals in response to changes in the external environment from the perspective of aligning them to business strategy.

In addition, as mentioned above, there are many cases in which policy support and guidance are necessary, particularly in the hard-to-abate industry. Therefore, the nature of transition plans for such companies can necessarily differ depending on policy direction. Furthermore, even in countries and regions where measures against climate change are not advanced and it is difficult for companies to take measures, the situation can change due to, for example, a

[25] A company with diverse business models has multiple business domains with different characteristics. In such a company, the materiality of climate change and business strategies differ from business to business. In addition, the ability to establish, track, and disclose climate-related targets may vary according to jurisdiction, sector, and business models. (TCFD Consortium, 2022, Guidance on Climate-related Financial Disclosure 3.0 (TCFD Guidance 3.0))

[26] TCFD, 2021, Guidance on Metrics, Targets, and Transition Plans, and Implementing of Recommendations of the Task Force on Climate-related Financial Disclosures

[27] See the discussion of the Working Group on Disclosure and Assurance of Sustainability under the Financial System Council.

review of the targets under the Paris Agreement (NDC). For this reason, it is desirable to constantly keep track of policy trends deemed important to the company, and to review transition plans in a timely manner when changes occur.

Chapter 4 Summary

Based on the definitions of TCFD and IFRS, this guidebook has discussed the transition plan drawing upon the latest investor views. The TCFD Consortium positioned the transition plan as "Decision-useful information that provides the clearest possible picture of how a company can balance value creation with the transition to a low-carbon, decarbonized society" and identified "transition to a low-carbon, decarbonized society," "alignment with business strategy," and "reaching out to others" as important basic concepts. In addition, it is concluded that the involvement of finance and corporate planning, investor relations, and finance departments is desired in formulating the transition plan more than the conventional TCFD disclosure.

The discussion of the transition plan for climate-related disclosure is in its early stages, and it may change in the process of discussion. At present, the transition plan is considered to be an integrated form of the current TCFD-based disclosure and the disclosure based on IFRS S2 which draw upon TCFD, in alignment with the business strategy. However, it is also plausible that some industry or regions may incorporate how the company is reaching out to others for the purpose of realizing carbon-neutral society, in addition to the current climate-related disclosure. In particular, engagement strategy may play a certain role for companies, to which external factors in reducing Scope 1 to 3 emissions is significant, and for companies in which it is difficult to foresee emission reductions in the value chain (such as companies with a high proportion of business in least developed countries).

The TCFD Consortium will continue to exchange opinions on the transition plan with standard setting bodies such as the International Sustainability Standards Board (ISSB) of the IFRS Foundation and GFANZ as well as companies and investors, and will disseminate information on the transition plan.

1. Transition to a low-carbon, decarbonized society

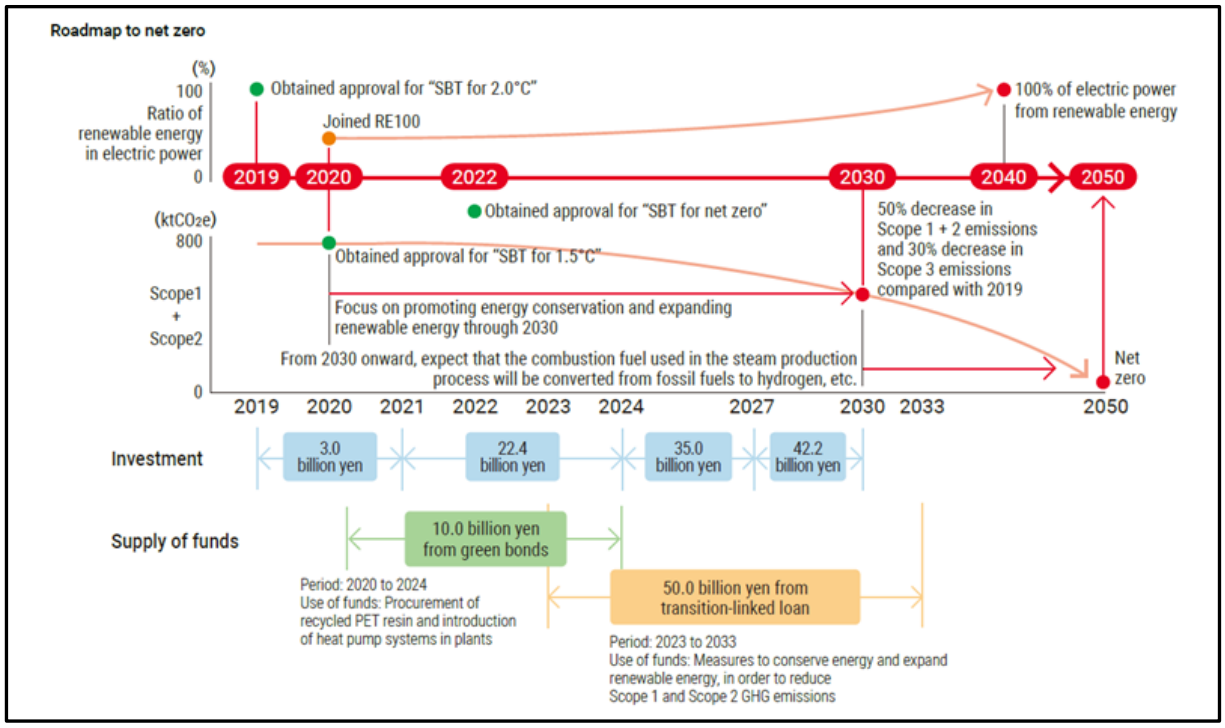
(1) Transition Pathway

In transition plans, it is expected that the transition pathway (transition path to a low-carbon, decarbonized society) will include not only emissions but also specific descriptions of the expected products and businesses, required investments, and related indicators (KPI). This section presents examples of disclosures related to transition pathways.

Kirin Group

In its "Roadmap to net zero," Kirin Group discloses its investment and financing plans along with related indicators such as Scope 1 to 3 emissions and the proportion of renewable energy electricity in a manner that shows its change over time, and interim targets are set for Scope 1 to 3 emissions. As a supplementary explanation to the Roadmap, it explains that internal carbon pricing has been introduced in the investment decision framework.

The Roadmap condenses the elements necessary for the transition plan and has been well regarded by investors as easy to understand.

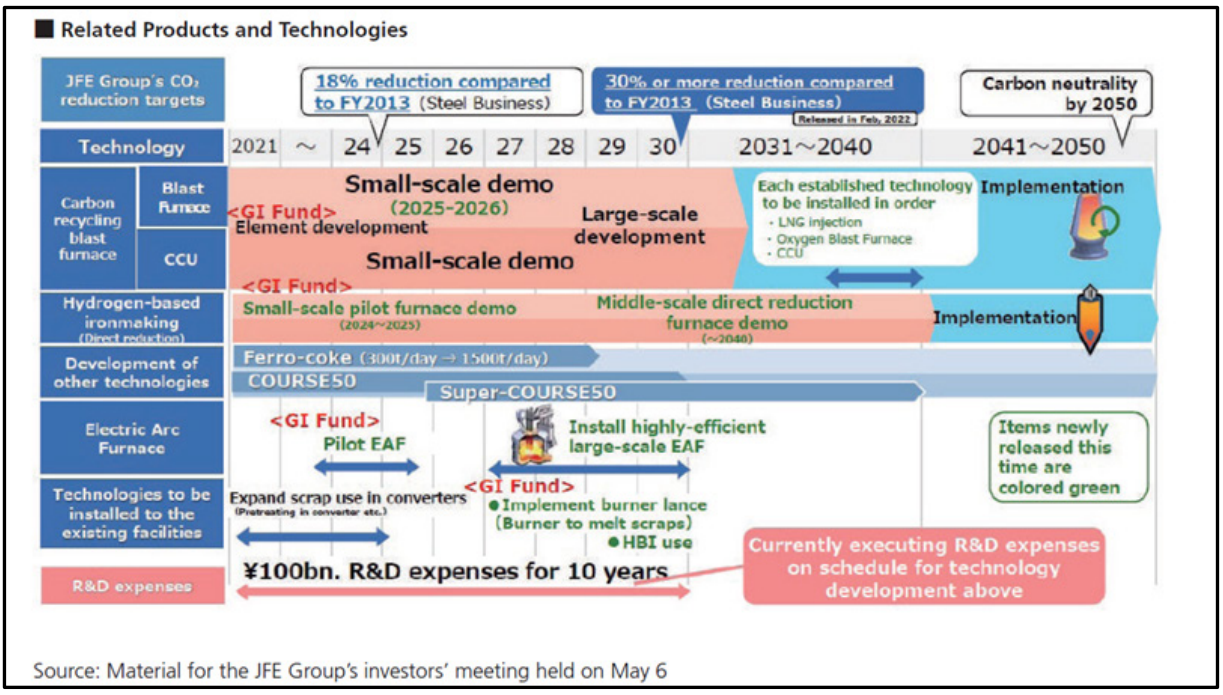


Source: Kirin Holdings, "Integrated Report 2024" p.86
(URL: https://www.kirinholdings.com/en/investors/library/integrated/, Last access date: July 30, 2024)

JFE Group

In addition to preparing a roadmap in accordance with the "JFE Group Environmental Vision for 2050," JFE Group explains that it aligns with the "Technology Roadmap for 'Transition Finance' in Iron and Steel Sector" published by the Ministry of Economy, Trade and Industry. The roadmap explains the progress of decarbonization technology development in the production process and provides metrics and targets for the company's business fields that are consistent with climate-related targets for products, raw materials, processes, and R & D investments expected in the future.

In addition, JFE Steel holds separate briefings on carbon neutrality strategy to explain the transition plan, and this aspect has also been well regarded by investors.[28]

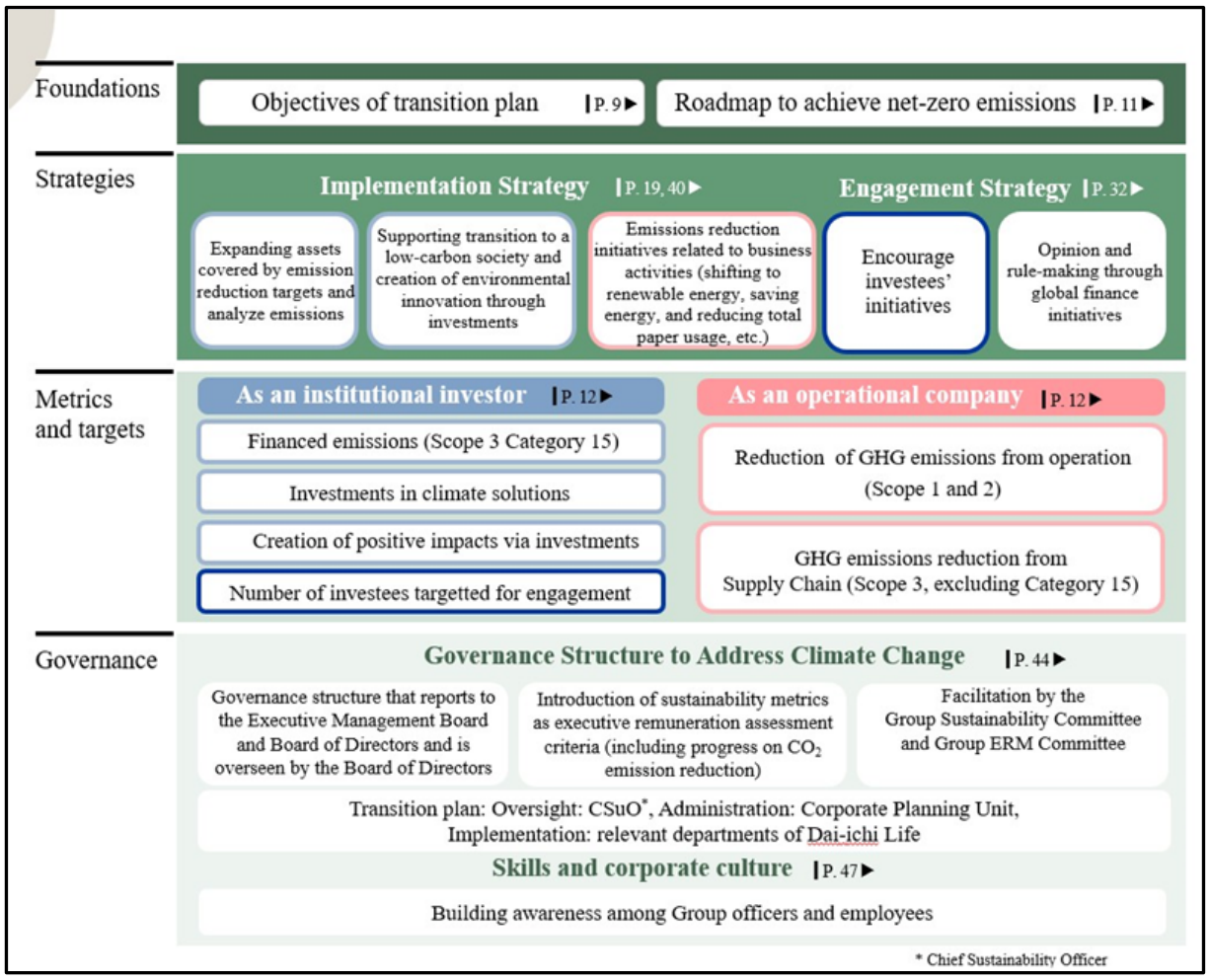


*GI Fund: Project for Utilizing Hydrogen in Steelmaking Processes by NEDO
Source: JFE Holdings, "JFE Group Sustainability Report 2023" p.70
(URL: https://www.jfe-holdings.co.jp/en/sustainability/data/index.html, Last access date: July 30, 2024)

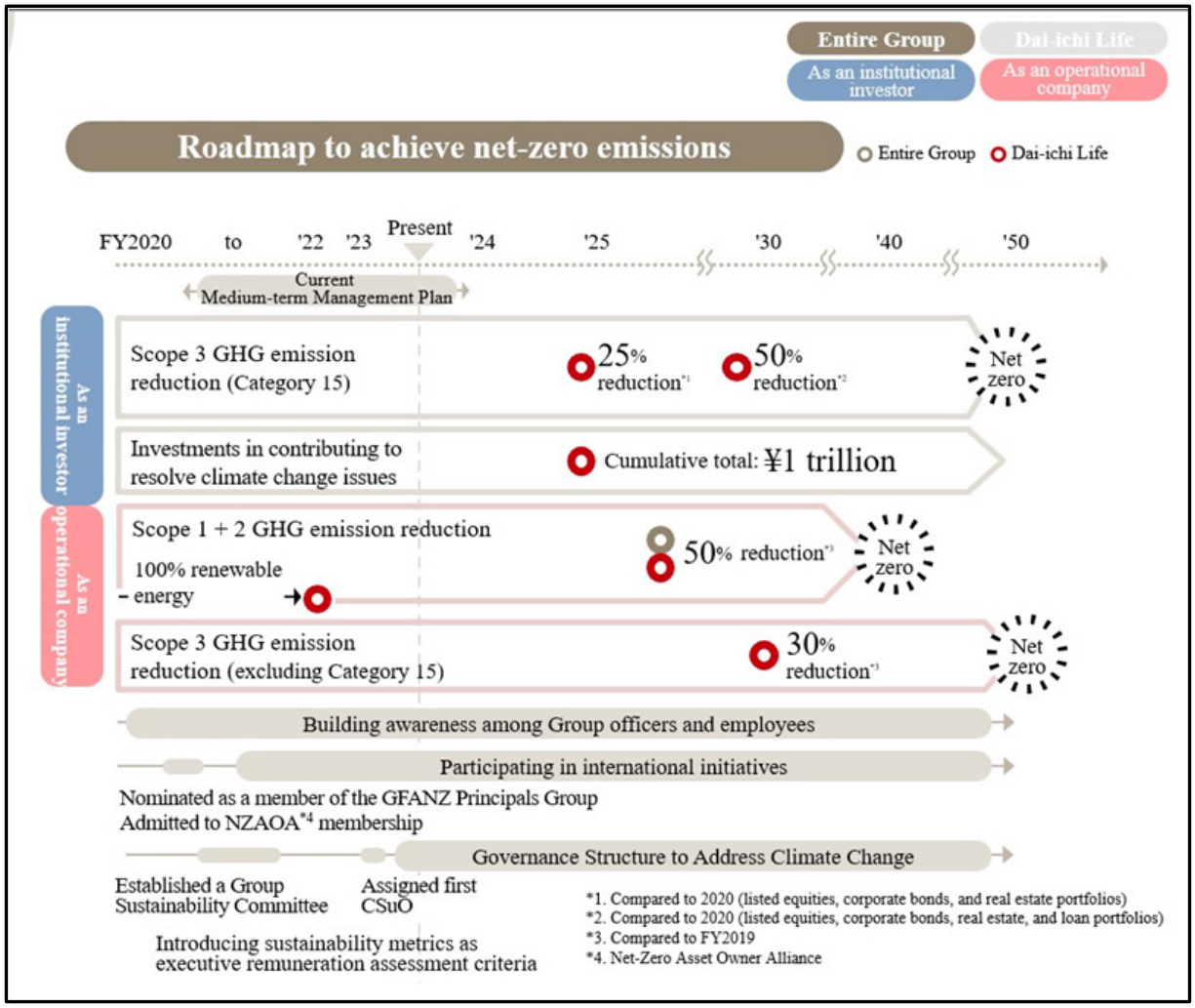
[28] JFE Holdings' website, "Addressing Climate Change Issues"
(URL: https://www.jfe-holdings.co.jp/en/investor/climate/presentation/index.html, Last access date: July 30, 2024)

Dai-ichi Life Group

Dai-ichi Life Group has prepared the Net Zero Transition Plan in a separate volume to explain the initiatives of the company both as an institutional investor and operating company. Specifically, transition plan is explained in a series of narratives and strategies that are easy for readers to understand, including the positioning of the Net Zero Transition Plan in the company's management strategy, the outline and objectives of the transition plan, and the roadmap from the perspectives of institutional investor and underwriting company. In addition, regarding governance, the report shows the level of corporate commitment, such as establishing governance supervised by the board of directors and a system to promote climate change responses. The report also shows the emission targets of the company's Scope 1 to 3 emissions, and summarizes future priority issues for each business activity. In addition, the report also shows engagement strategy, and comprehensively covers various elements that is desirable to be included in the transition plan.



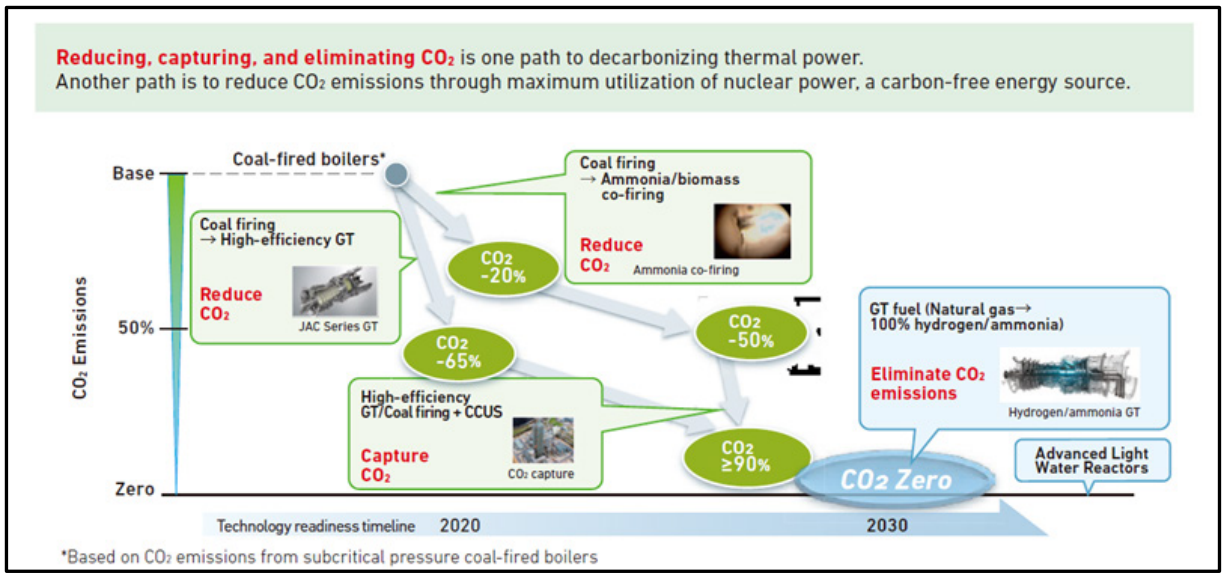
Source: Dai-ichi Life Holdings, "Net Zero Transition Plan" p.7
(URL: https://www.dai-ichi-life-hd.com/en/sustainability/environment/nztransitionplan.html, Last access date: July 30, 2024)



Source: Dai-ichi Life Holdings, "Net Zero Transition Plan" p.11
(URL: https://www.dai-ichi-life-hd.com/en/sustainability/environment/nztransitionplan.html, Last access date: July 30, 2024)

Mitsubishi Heavy Industries Group

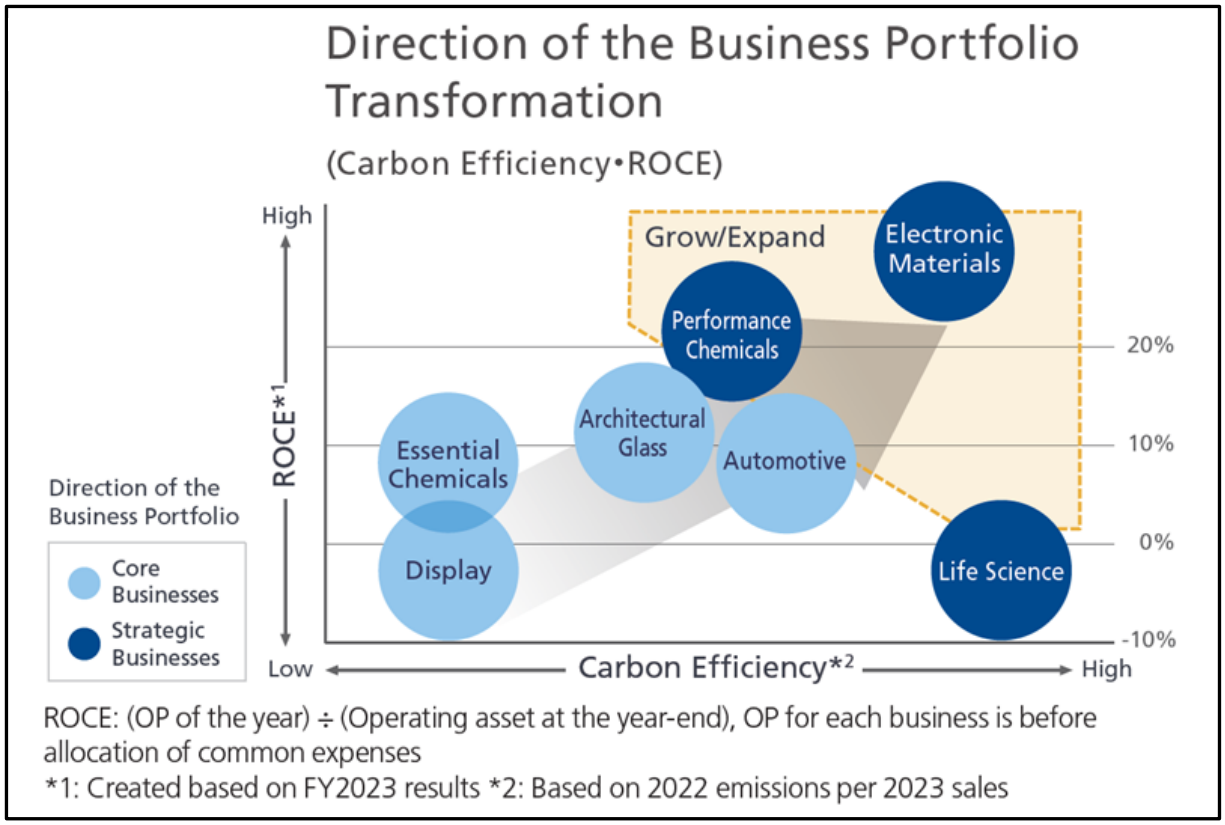
The Mitsubishi Heavy Industries Group has announced its goal of carbon neutrality by 2040 and has disclosed in detail the measures and implementation timing required to achieve the target. In addition, with regard to the interim target for 2030, the report discloses the measures and the extent to which CO2 emissions will be reduced using multiple pathways, and provides detailed explanation of the status of product and technology development related to its business fields. These description of specific technologies and products envisaged are valued by investors.



Source: Mitsubishi Heavy Industries, "MHI REPORT 2023" p.32
(URL: https://www.mhi.com/sustainability, Last access date: July 30, 2024)

AGC Group

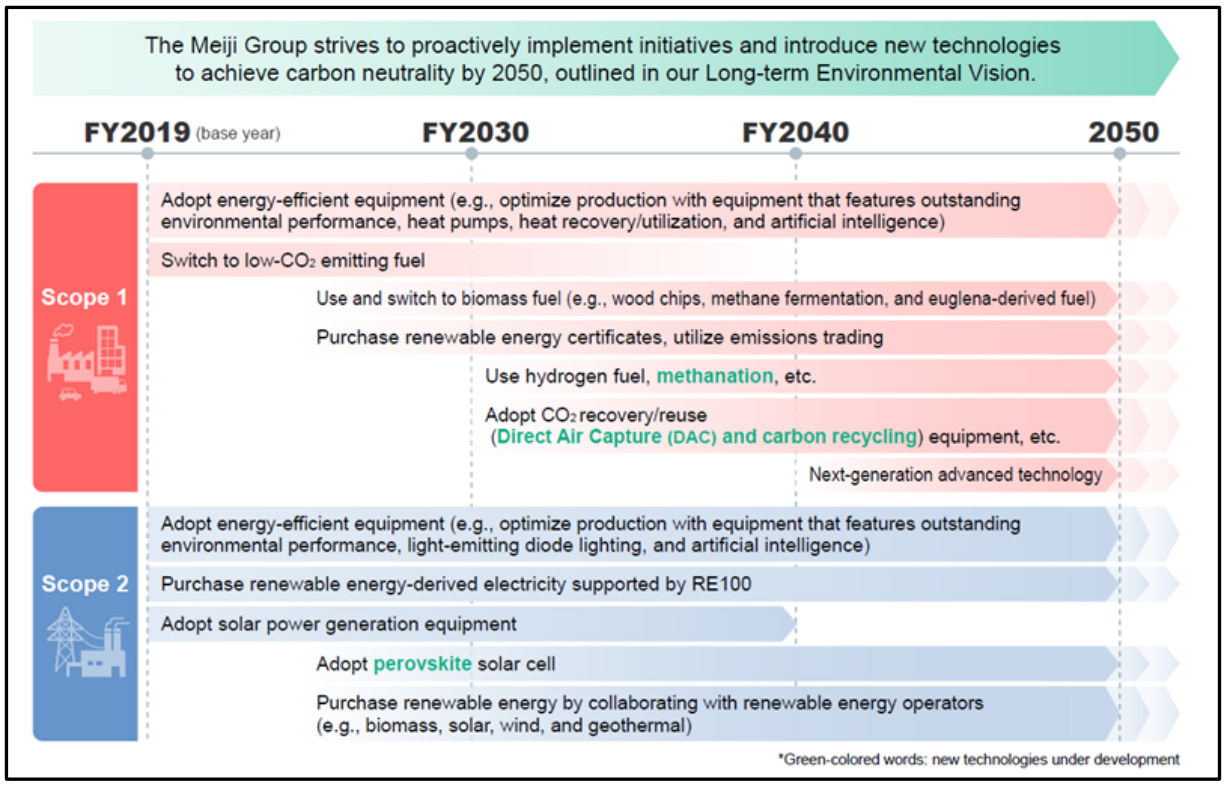
AGC Group's disclosure illustrates the direction of its business portfolio in light of climate scenarios by identifying areas which achieve both decarbonization and high profitability through mapping by carbon efficiency (sales per emission) and ROCE (return on capital employed). In addition, as for risk management, the AGC Group has established a risk management system based on the AGC Group Risk Management Implementation Regulations. These contents are regarded by investors as helpful.



Source: AGC, "AGC Integrated Report 2024" p.22
(URL: https://www.agc.com/en/sustainability/book/, Last access date: July 30, 2024)

Meiji Group

For each of Scope 1 and 2 emissions, the report provides an image of specific measures to reduce emissions and the timing of the introduction of related equipment. The report also discloses the financial impact of carbon neutral policies for major raw materials etc., and is regarded by investors for providing a concrete picture of the transition.

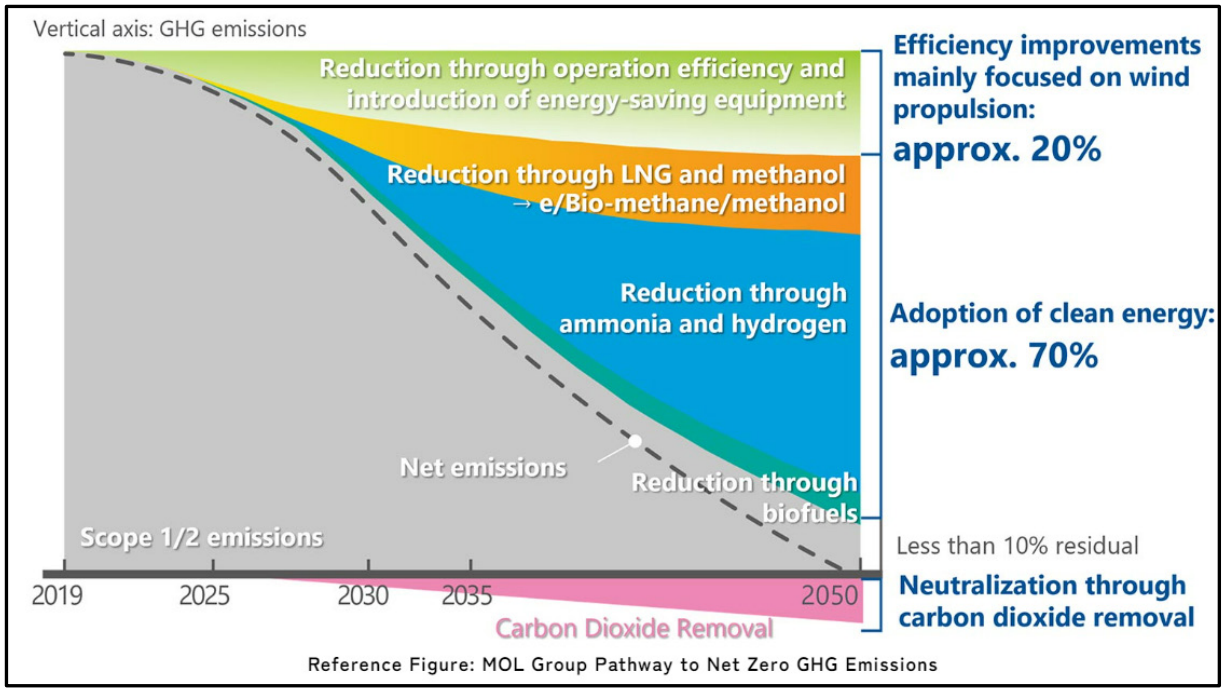


Source: Meiji Holdings, "CARBON NEUTRLAITY BY 2050" p.5
(URL: https://www.meiji.com/global/sustainability/caring-for-the-earth/climate-change.html, Last access date: July 30 2024)

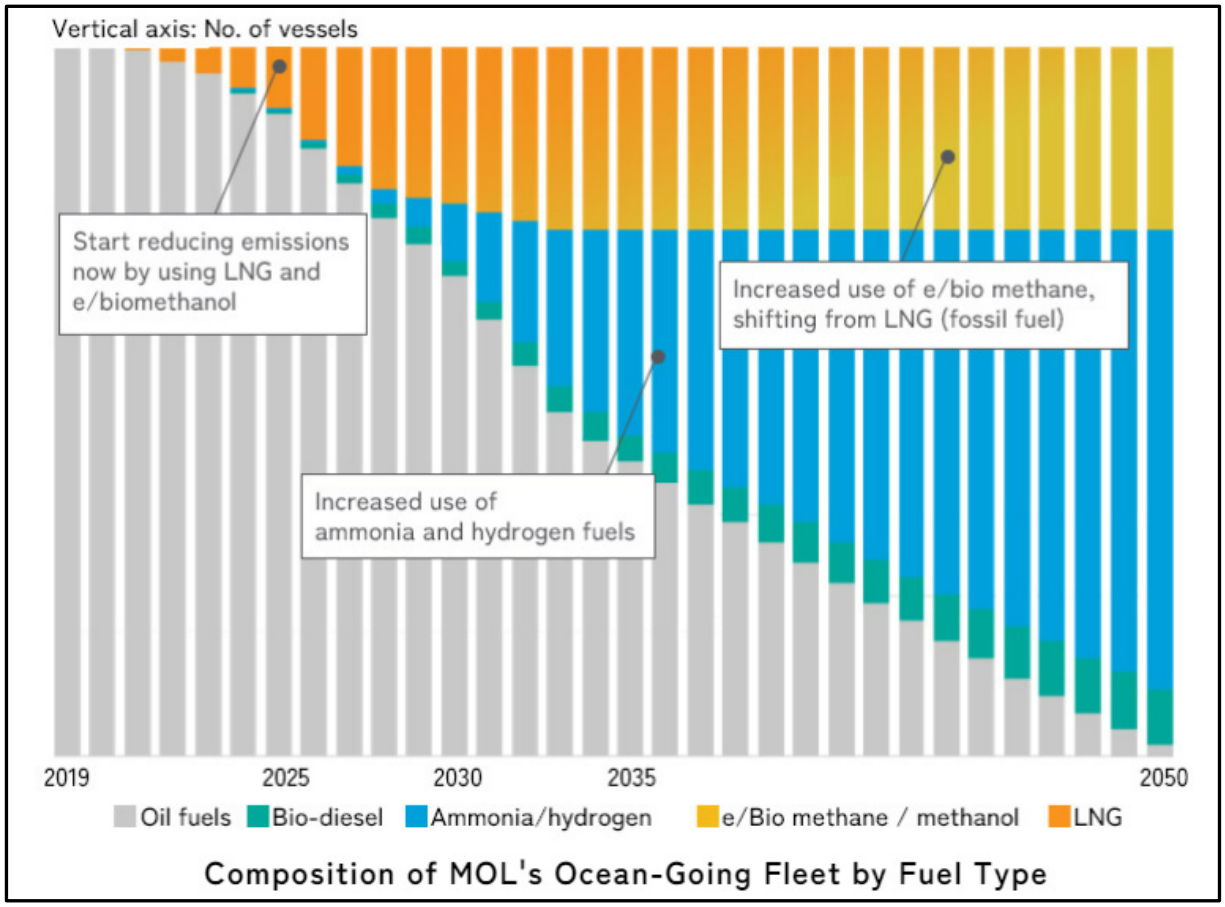
Mitsui O.S.K. Lines Group

In addition to the transition pathway toward net zero emissions by 2050, the company's website provides quantitative and visual information on the contribution of each measure to emission reduction, along with the composition of the ship types used.

Furthermore, the company has set an interim target for investment and presented a concrete pathway. These points are valued by investors.



Source: Mitsui O.S.K. Lines, "Climate Change Countermeasures / Task Force on Climate-related Financial Disclosures (TCFD) "
(https://www.mol.co.jp/en/sustainability/environment/tcfd/, Last access date: July 30, 2024)



Source: Mitsui O.S.K. Lines, "Climate Change Countermeasures / Task Force on Climate-related Financial Disclosures (TCFD) "
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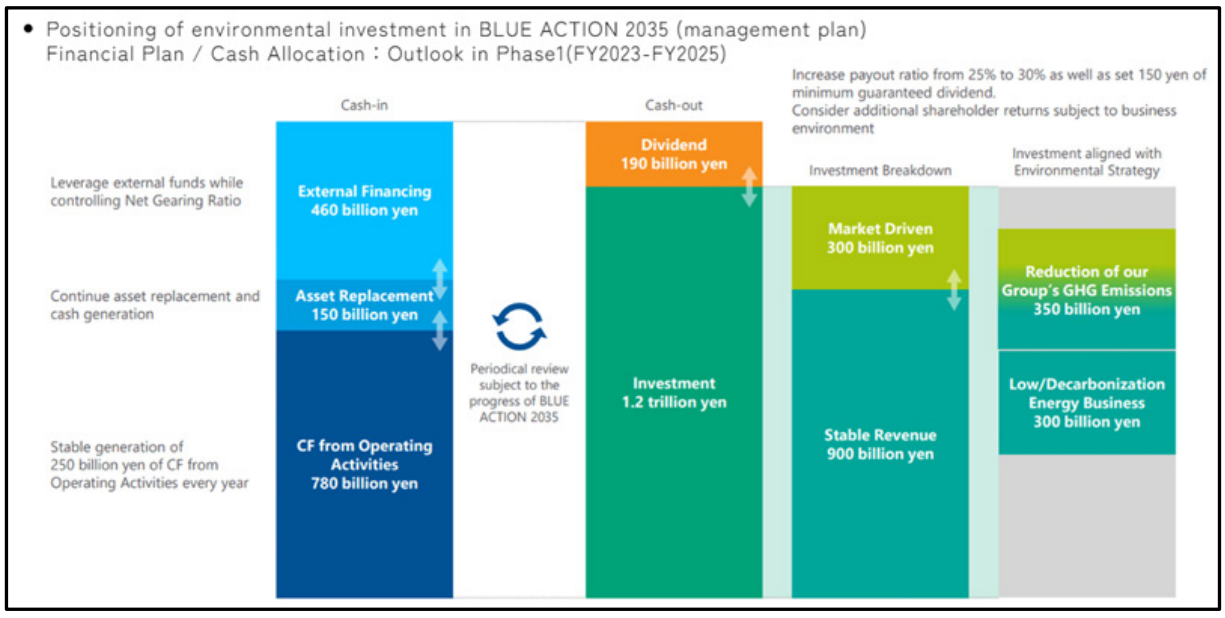

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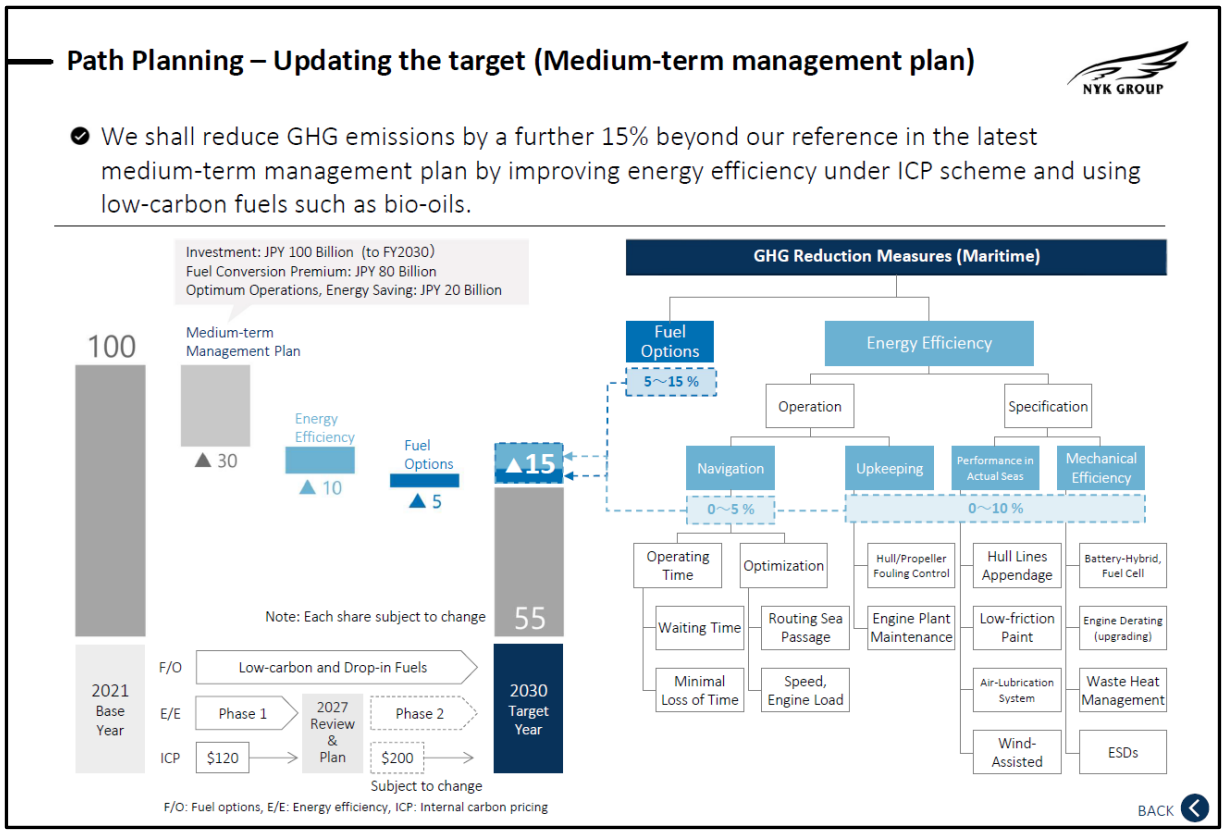
(https://www.mol.co.jp/en/sustainability/environment/tcfd/, Last access date: July 30, 2024)

NYK Group

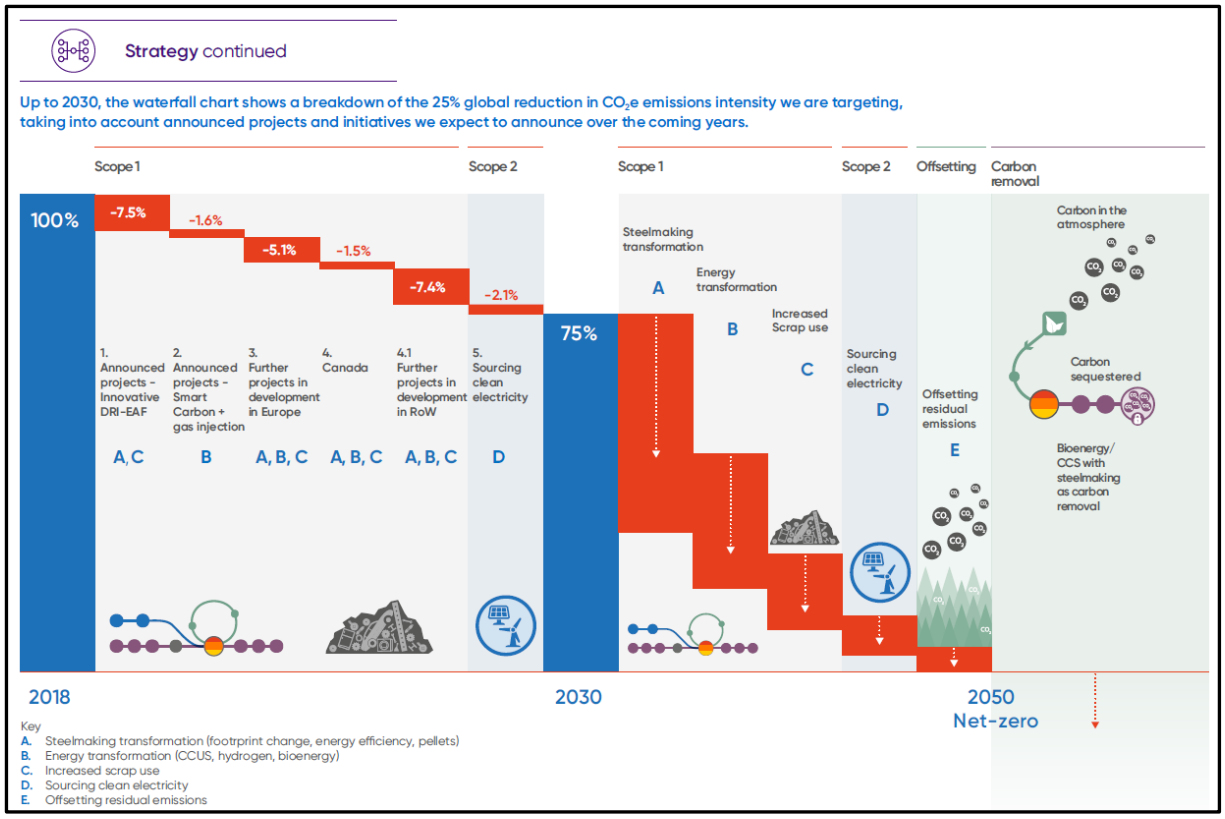
This report, aimed for foreign readership, is well regarded by investors for its concise description on the linkage of investment amount and emission reduction pathway, including the effect of the measures, along with assumptions such as internal carbon price on which the report is based.



Source: NYK Line, "NYK Group Decarbonization Story" p.69
(URL: https://www.nyk.com/english/esg/envi/decarbonization/, Last access date: July 30, 2024)

ArcelorMittal

The company discloses a roadmap that describes individual measures and their relative contribution to reduction toward the decarbonization target in 2030 and 2050. Although it does not show the specific contribution of each measure after 2030 which is difficult to calculate quantitatively, it qualitatively illustrates the degree of the expected benefits, which is valued by investors as useful information.



Source: ArcelorMittal "ArcelorMittal Integrated Annual Review 2022" p.23
(URL: https://corporate.arcelormittal.com/corporate-library/reporting-hub/integrated-annual-review-2022, Last access date: July 30, 2024)

(2) Quantitative Disclosure

Kirin Group

The group monitors the status of emissions at each group company and quantitatively discloses related metrics, targets, and results, as well as investment amounts in each business areas. Such quantitative disclosure has been valued by investors for ease of monitoring.

Source: Kirin Holdings, "Integrated Report 2024" p.87
(URL: https://www.kirinholdings.com/en/investors/library/integrated/, Last access date: July 30, 2024)

Metrics and targets*6

Response	Item	Target	Achievements (End of 2022)
Targets related to climate change	GHG emissions from the entire value chain (relative value)	Net-zero (2050)	4,876 kt CO2e
	Scope1+2	-50% (2030 compared to 2019)	-18%
	Scope 3 *7	-30% (2030 compared to 2019)	-1%
	Ratio of renewable energy purchased electric power	100% (2040)	27%
Targets related to natural capital	Number of large tea farms in Sri Lanka that received training for the acquisition of certification	Cumulative total of 15 large farms (2022 to 2024)	4 large farms
	Number of small tea farms in Sri Lanka that received training for the acquisition of certification	Cumulative total of 5,350 small farms (2022 to 2024)	9 small farms
	Ratio of certified palm oil used (Japan)	Maintain 100%	100%
	Water efficiency in Lion	2.4 kl/kl (2025)	3.6kl/kl
Targets related to containers and packaging	Percentage of recycled resins used in PET bottles (Japan)	50% (2027)	8.3%
	Percentage of FSC-certified paper used for paper containers in the domestic beverage business	Maintain 100%	100%

*6 As of the end of 2022
*7 Used IDEA (Inventory Database for Environment Analysis) version 2.3 and version 3.1 developed by The Research Institute of Science for Safety and Sustainability to calculate Scope 3 emissions for each fiscal year

Source: Kirin Holdings, "Integrated Report 2024" p.87
(URL: https://www.kirinholdings.com/en/investors/library/integrated/, Last access date: July 30, 2024)

ENEOS Group

As a roadmap for reducing society's GHG emissions, ENEOS Holdings clearly discloses each metric for the transition, including carbon intensity (CO2 emissions per energy supply) and the amount of contribution to the reduction, which is appreciated by investors as a way to increase understanding of the transition pathway.

Roadmap for the Reduction of Greenhouse Gas Emissions of Society

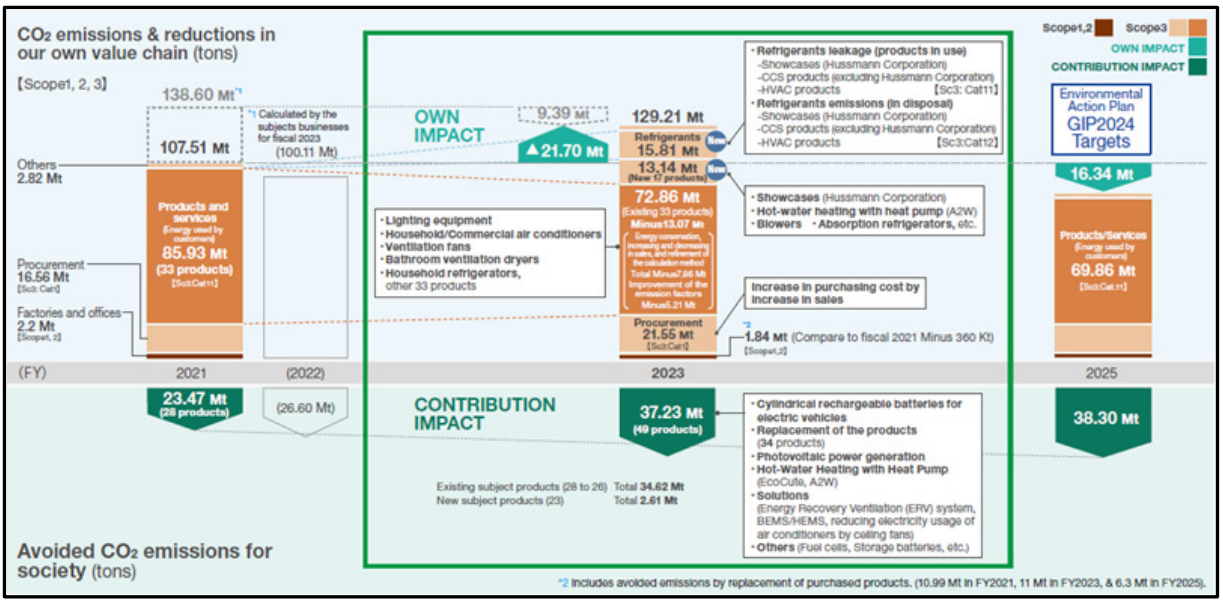
				FY2025	FY2030	FY2040
Energy field	Promote energy transition	**CI (Carbon Intensity)**		**87** g-CO_2/MJ	**81** g-CO_2/MJ	**44** g-CO_2/MJ
		CO_2-free hydrogen		Investment decision for commercialization	250 thousand tons	1–4 million tons
		Carbon-neutral fuels	SAF	1st case investment decision	500–700 thousand KL	Domestic share: 50%
			Biofuel	—	Supply: 10% mixing to high-octane gasoline[14]	Supply: 20% mixing to gasoline[14]
			Synthetic fuel	Demonstration of 1 barrel/day-scale	Manufacture synthetic fuel: 300 barrels/day	Manufacture synthetic fuel: 10 thousand barrels/day or more
		Renewable energy Renewable energy total power generation capacity		2 GW	3 GW	6–8 GW
		CCS (for other businesses)		—	—	4–10 million tons
Materials and services field	Promote circular economy	Petrochemicals Non-fossil resource ratio[15]		20 thousand ton scale Start of waste plastic liquefaction business	20%	35%
		Lubricants Recycling amount		Completion of demonstration	100 thousand KL	200 thousand KL
		Copper smelting Recycling ratio		—	25%	50%
		Final disposal ratio of waste		Less than 1.0%		
	Expansion of products which contribute to avoided emissions	Avoided emissions (materials)[16]		750 thousand tons-CO_2e	1,500 thousand tons-CO_2e	2,000 thousand tons-CO_2e

[14] Biofuel + Synthetic fuel
[15] Input ratio of green raw materials (waste-plastic-recycled oil, bionaphtha, etc.) against the production volume of products derived from naphtha cracker
[16] Assuming about 20–50 million tons-CO_2e of avoided emissions (for fiscal 2040) by hydrogen and carbon-neutral fuel

Source: ENEOS Holdings, "ENEOS REPORT 2023 Integrated Report" p.33
(URL: https://www.hd.eneos.co.jp/english/ir/library/annual/, Last access date: July 30, 2024)

Panasonic Group

In addition to the emissions from its own value chain, the Panasonic Group is well regarded for disclosing the amount of reduction contribution as Contribution Impact, and the specific details of the reduction contribution (details can be found on other pages of the report and on the company's website).



Source: Panasonic Holdings, "Sustainability Data Book 2023" p.13
(URL: https://holdings.panasonic/global/corporate/sustainability/data-book.html, Last access date: July 30, 2024)

Avoided CO_2 Emissions

The CONTRIBUTION/FUTURE IMPACT of Panasonic GREEN IMPACT, commonly referred to as the avoided emissions, is an indicator of the value of the amount of CO_2 emissions contributed to the reduction of CO_2 emissions by customers and society by introducing our group products and services, compared to the amount not introduced (baseline). In fiscal 2023, CONTRIBUTION IMPACT totaled 37.23 million tons in 49 businesses covering products and services sold in the same year. Most of this is in the living business, which includes air conditioners and lightings, and the energy business, which includes EV rechargeable batteries, accounting for about 50% of Group sales. Our group's main business is to provide electrified products and services (electrical and electronic equipment) by converting to electric appliances that are more efficient in energy use than those that use fossil fuels, we are able to reduce CO_2 emissions. The widespread use of electric appliances will increase demand for electricity, but by continuously increasing the efficiency of energy use in appliances and spaces, and by controlling and optimizing demand through energy storage and energy management, we will reduce the load on grid power in each region and promote renewable energy.

On the other hand, although there is no internationally uniform standard for the avoided emissions (as of August 2023), our company has participated in WBCSD[*1], IEC[*2], and the GX League[*1], and has worked with like-minded government departments and companies to promote dialogue on the need for the avoided emissions. In March 2023, the WBCSD and the GX League released guidance and guidelines on the avoided emissions[*2], and we are working on a calculation based on these guidelines in conjunction with discussions at the IEC[*3], which aims to achieve international standardization. The baseline (comparison target) is the period of use (durable life, etc.) of our group products and services compared to the market average condition expected for each business, and the annual electricity consumption in terms of design and calculated rationally under conditions judged to be objectively reasonable after discussions within the Panasonic Group. The basic structure of the calculation formula is as follows: activity volume (sales volume, etc.) × annual reduction per activity volume (difference in energy consumption compared to baseline, etc.) × CO_2 emission factor. This calculation method and the data on which it is based have been verified by a third party, and this is our group's first disclosure in this report.

The concept and purpose of use of these two indicators are very different. The emissions cannot be offset by "avoided emissions (reduction contribution to customers)". The emissions reduction is the company's responsibility. Our mid-term to long-term reduction targets are certified as SBTs 1.5 degree targets[*4] in May 2023. Panasonic group aims to realize a decarbonized society early by accelerating the PDCA cycle of both responsibility and contribution.

*1 World Business Council for Sustainable Development (WBCSD), International Electrotechnical Commission (IEC), GX League is a forum for cooperation between a group of companies, the government and academic institutions in order to meet greenhouse gas reduction targets and increase industrial competitiveness by using Japan's goal of carbon neutrality by 2050 as an opportunity for economic growth.
*2 "Avoided Emissions Guidance" by WBCSD, "Basic Guidelines for Disclosure and Evaluation of Opportunities for Climate Change" by GX League
*3 IEC63372 ("Avoided CO_2 emissions" international standard to be issued in 2024.)
*4 Companies play their part in combating climate change by setting GHG emissions reduction targets that are aligned with reduction pathways for limiting global temperature rise to 1.5°C or well-below 2°C compared to pre-industrial temperatures. These targets are termed science-based targets (SBTs).

For further examples of our avoided emissions products that contribute to CO_2 reduction for consumers and society, see the following website.
https://holdings.panasonic/global/corporate/sustainability/environment/vision/product.html

CONTRIBUTION IMPACT

[Unit: ton] Calculation example : See the following pages for further examples.

Category	Top 20 businesses in FY 2023	
Electrification	Cylindrical Rechargeable Batteries for EVs	Calculation example
9.70 million in FY 2021 → 4 businesses 17.79 million	Hot-Water and Heating Systems with Heat Pump (A2W)	Calculation example
	Electric-assist Bikes	
	Hot-Water Systems with Heat Pump (EcoCute)	Calculation example
	Total 4 businesses: 17.79 million	
Replacements (Calculation example (Home appliance))	Household Air Conditioners	
	LED Lightings	
	Household Refrigerators	
10.99 million in FY 2021 → 34 businesses 11.00 million	Electric Showers / Electric Water Heaters	
	Commercial Air Conditioners	
	Washing and Drying machines	
	Projectors	
	LCD TVs	
	CO_2 Freezers	
	Dryers	
	Total top 10 businesses: 10.29 million	
Solution	Heat Exchange System	Calculation example
4 businesses 2.42 million	Ceiling Fans	
	BEMS*1 / HEMS*2	
	Total top 3 businesses: 2.31 million	
Others (Calculation example (Vacuum Insulated Glasses) (Home Delivery Communication Boxes))	Photovoltaic Power Generation Systems	
7 businesses 6.01 million	Fuel Cells	
	Creation and Storage Collaboration System (Storage batteries)	
	Total top 3 businesses: 5.96 million	
Total all 49 products and services: ★37.23 million		

*1 Building Energy Management System
*2 Home Energy Management System

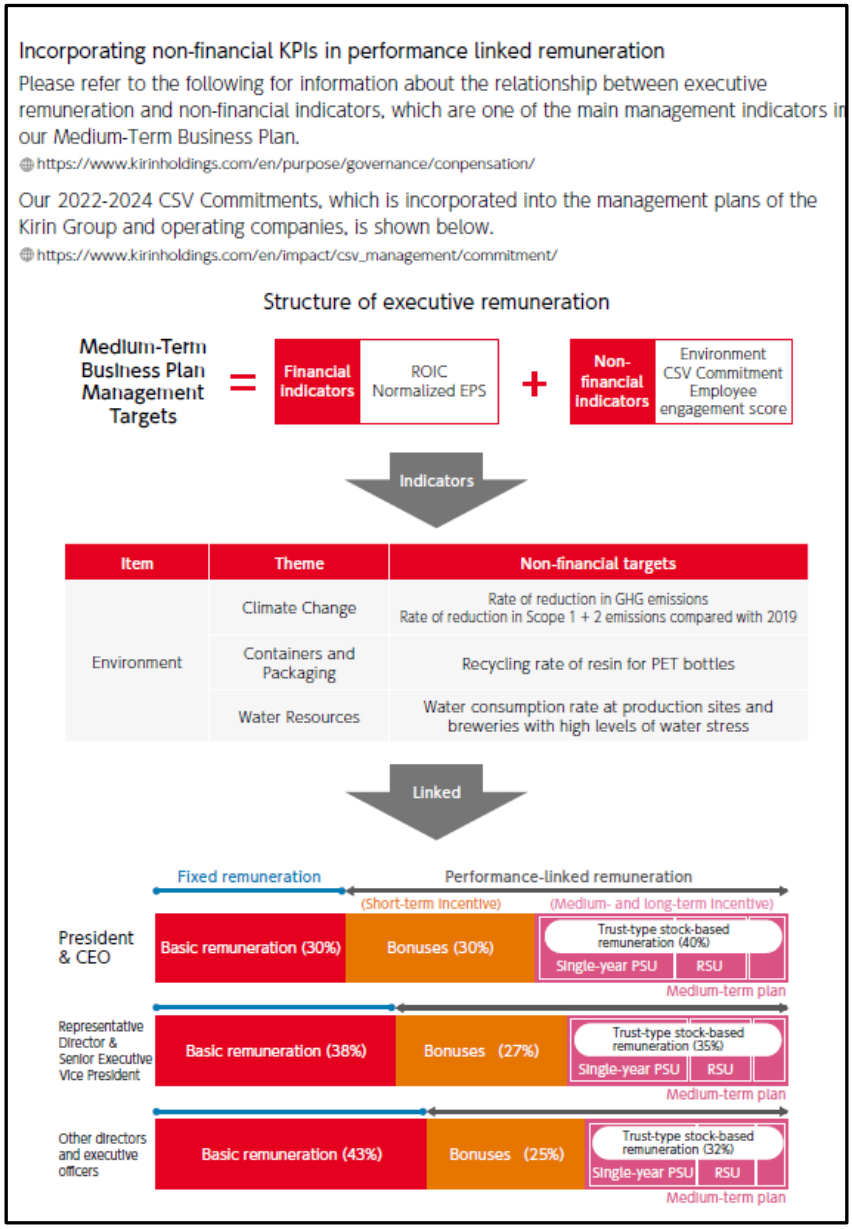
Source: Panasonic Holdings, "Sustainability Data Book 2023" p.14
(URL: https://holdings.panasonic/global/corporate/sustainability/data-book.html, Last access date: July 30, 2024)

2. Alignment with Business Strategy

(1) Management Involvement

Kirin Group

The company discloses the non-financial metrics subject to evaluation including environmental issues such as climate change, and that these issues are reflected in executive compensation. It is well regarded by investors that the substantial involvement of management is evident and that the company is committed.

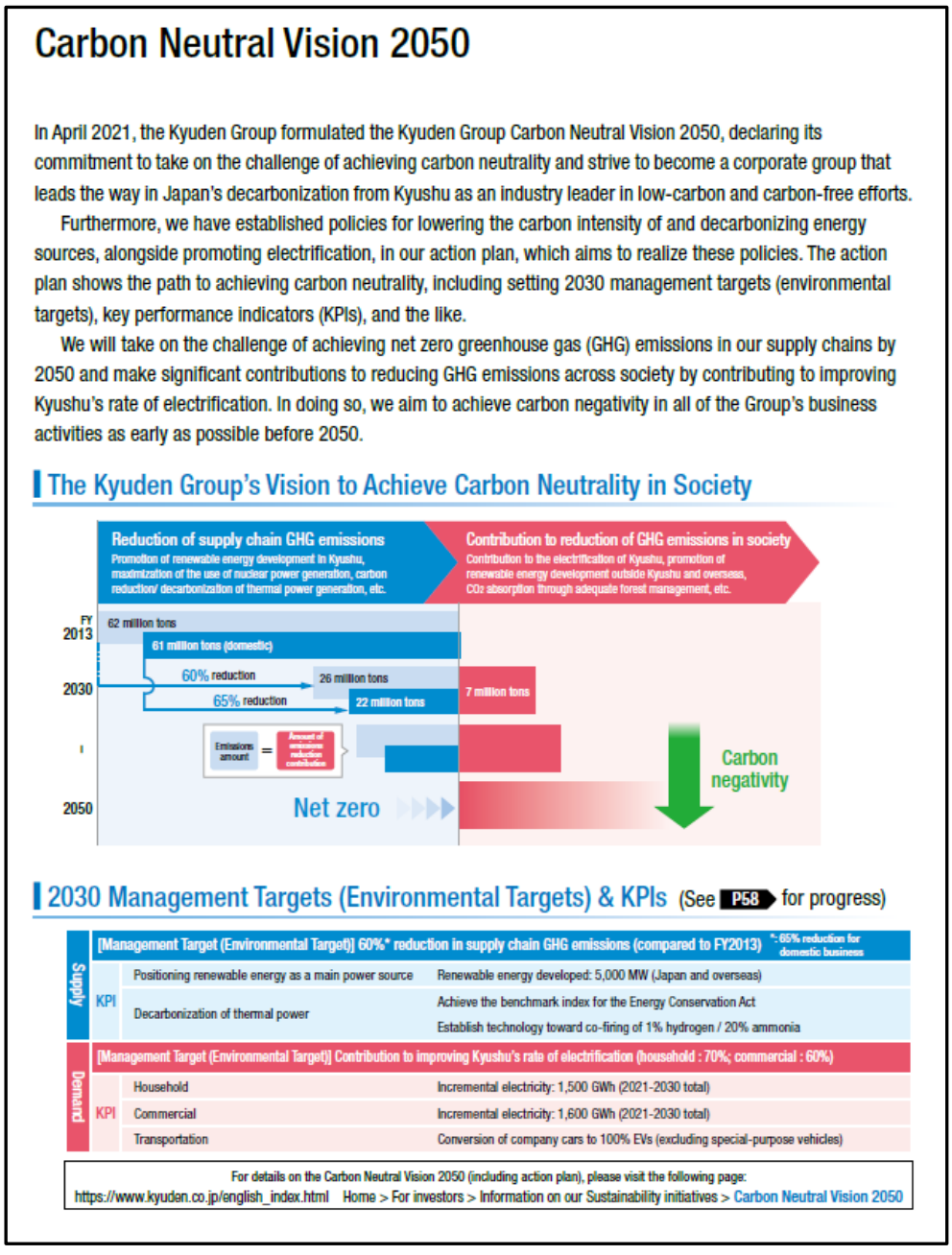


Source: Kirin Holdings, "Environmental Report 2023" p.18
(URL: https://www.kirinholdings.com/en/investors/library/env_report/, Last access date: July 30, 2024)

(2) Alignment with Corporate Business

Kyuden (Kyushu Electric Power) Group

As part of its transition plan, Kyushu Electric Power has formulated its "Carbon Neutral Vision 2050." As an action plan to achieve this, the company has set management targets (environmental targets) and KPIs for 2030 and has been praised by investors for its concrete roadmap to achieve carbon neutrality in a manner consistent with its business in such areas as renewable energy and electrification.



Carbon Neutral Vision 2050

In April 2021, the Kyuden Group formulated the Kyuden Group Carbon Neutral Vision 2050, declaring its commitment to take on the challenge of achieving carbon neutrality and strive to become a corporate group that leads the way in Japan's decarbonization from Kyushu as an industry leader in low-carbon and carbon-free efforts.

Furthermore, we have established policies for lowering the carbon intensity of and decarbonizing energy sources, alongside promoting electrification, in our action plan, which aims to realize these policies. The action plan shows the path to achieving carbon neutrality, including setting 2030 management targets (environmental targets), key performance indicators (KPIs), and the like.

We will take on the challenge of achieving net zero greenhouse gas (GHG) emissions in our supply chains by 2050 and make significant contributions to reducing GHG emissions across society by contributing to improving Kyushu's rate of electrification. In doing so, we aim to achieve carbon negativity in all of the Group's business activities as early as possible before 2050.

The Kyuden Group's Vision to Achieve Carbon Neutrality in Society

2030 Management Targets (Environmental Targets) & KPIs (See P58 for progress)

Supply	[Management Target (Environmental Target)] 60%* reduction in supply chain GHG emissions (compared to FY2013) *: 65% reduction for domestic business		
	KPI	Positioning renewable energy as a main power source	Renewable energy developed: 5,000 MW (Japan and overseas)
		Decarbonization of thermal power	Achieve the benchmark index for the Energy Conservation Act Establish technology toward co-firing of 1% hydrogen / 20% ammonia
Demand	[Management Target (Environmental Target)] Contribution to improving Kyushu's rate of electrification (household : 70%; commercial : 60%)		
	KPI	Household	Incremental electricity: 1,500 GWh (2021-2030 total)
		Commercial	Incremental electricity: 1,600 GWh (2021-2030 total)
		Transportation	Conversion of company cars to 100% EVs (excluding special-purpose vehicles)

For details on the Carbon Neutral Vision 2050 (including action plan), please visit the following page:
https://www.kyuden.co.jp/english_index.html Home > For investors > Information on our Sustainability initiatives > Carbon Neutral Vision 2050

Source: Kyushu Electric Power, "Integrated Report 2023" p.8
(URL: https://www.kyuden.co.jp/english_ir_library_Integratedreport_2023.html, Last access date: July 30, 2024)

In its integrated report, opportunities in the company's business portfolio are also disclosed, and the relationship with the management plan is deemed as easy to understand. In addition, the report also mentions that the company aims to achieve a 100% electrification rate in the Kyushu region by 2050 through its efforts, highlighting its contribution to the target of society as a whole.

Promotion of Electrification

Combining environmentally friendly energy with the resources of the Kyuden Group, we will take on the challenge of maximizing electrification, especially in the Kyushu area where the potential for electrification is great, helping reduce greenhouse gas (GHG) emissions throughout society.

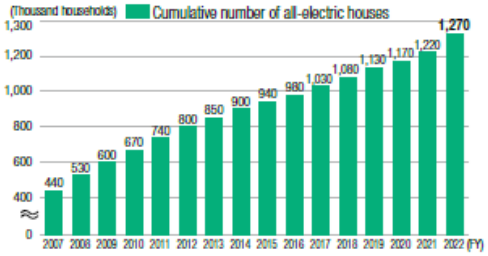
Household and Commercial Sectors

In the household sector, we are promoting the transition to all-electric homes through more events and mass marketing that convey the advantages of going fully electric, and engaging in sales activities that seize upon various opportunities.

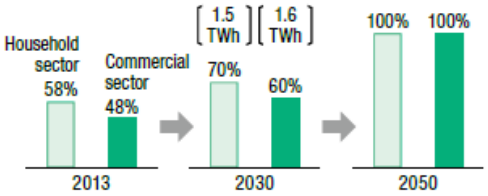
In terms of climate-control and hot water supply systems for the commercial sector, we offer high-efficiency heat pump systems optimized for use in our customers' facilities. We are also promoting the adoption of electric facilities in kitchens by extensively publicizing the advantages of electric kitchen systems in terms of ease of use, hygiene, and economy.

Through these initiatives, we aim for a 100% electrification rate in Kyushu by 2050, and we will contribute to reaching 70% in the household sector and 60% in the commercial sector by 2030. In achieving this goal, we are aiming for total incremental increases in power consumption of 1.5 TWh in the household sector and 1.6 TWh in the commercial sector between 2021 and 2030.

Cumulative number of all-electric homes in Kyushu



Contributing to the electrification rate of Kyushu



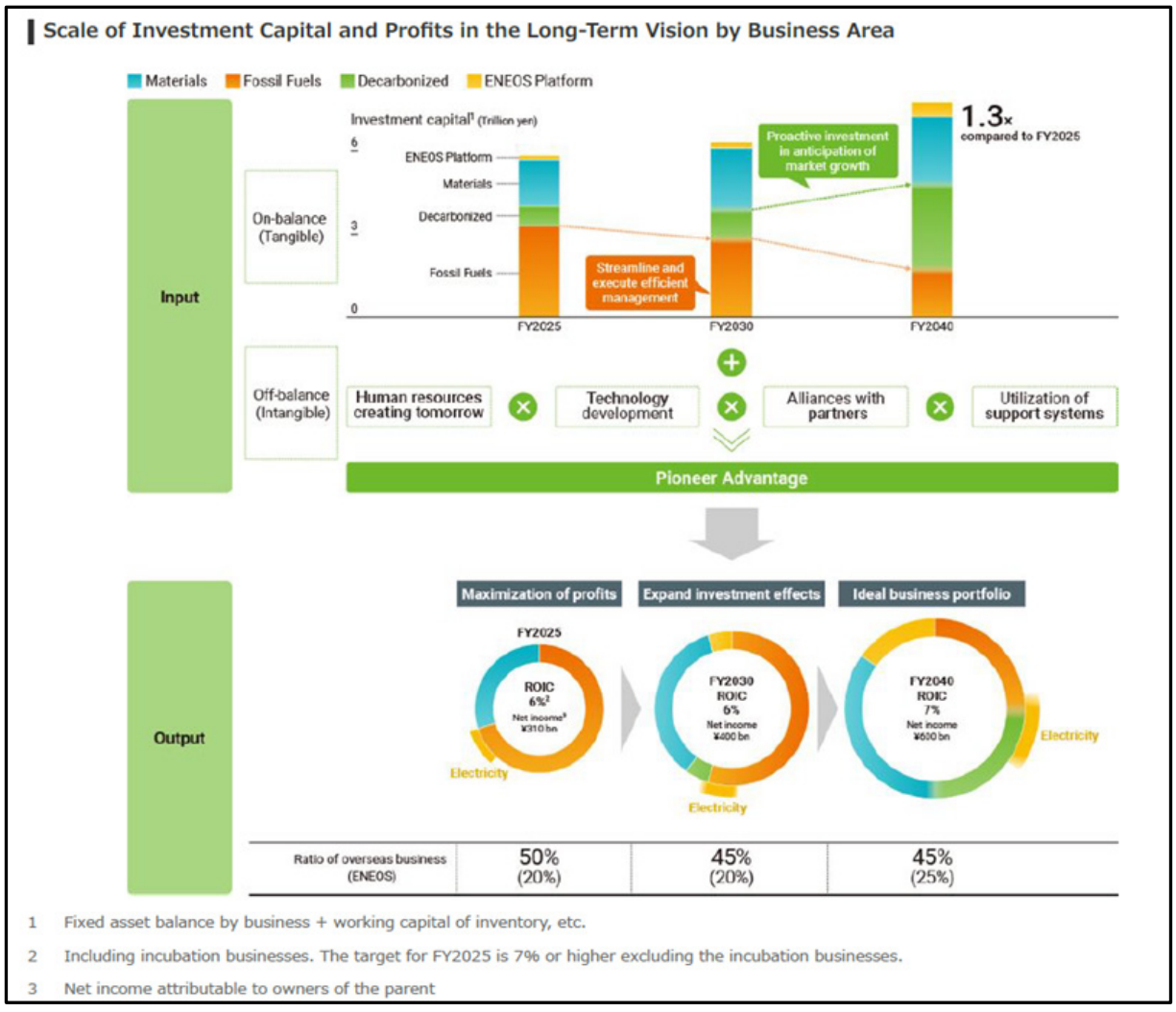
Note: Figures in parentheses indicate incremental increase of electricity (2021-2030 total)

	Sector	FY2022	Cumulative (from FY2021)
Incremental Increase Performance	Household	0.12 TWh	0.25 TWh
	Commercial	0.1 TWh	0.21 TWh

Source: Kyushu Electric Power, "Integrated Report 2023" p.47
(URL: https://www.kyuden.co.jp/english_ir_library_Integratedreport_2023.html, Last access date: July 30, 2024)

ENEOS Group

The company quantifies and discloses the investment capital required for the transition according to business areas and timeframe. This disclosure of investment capital shows the company-wide stance on measures for transition and is well regarded by investors as being easy to understand the relationship with its business.

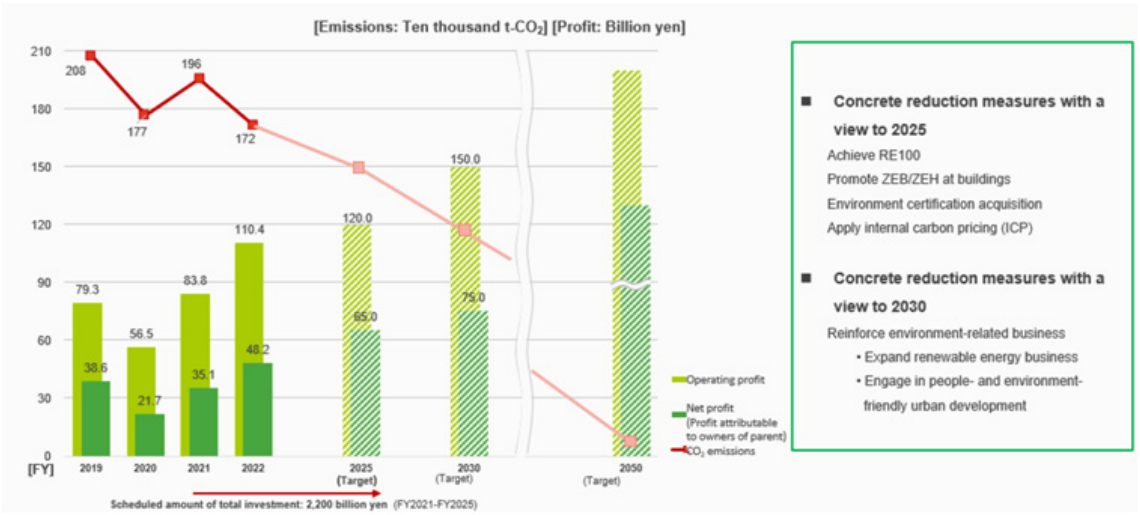


Source: ENEOS Holdings, "ENEOS REPORT 2023 ESG DATA BOOK" p.64
(URL: https://www.hd.eneos.co.jp/english/esgdb/, Last access date: July 30, 2024)

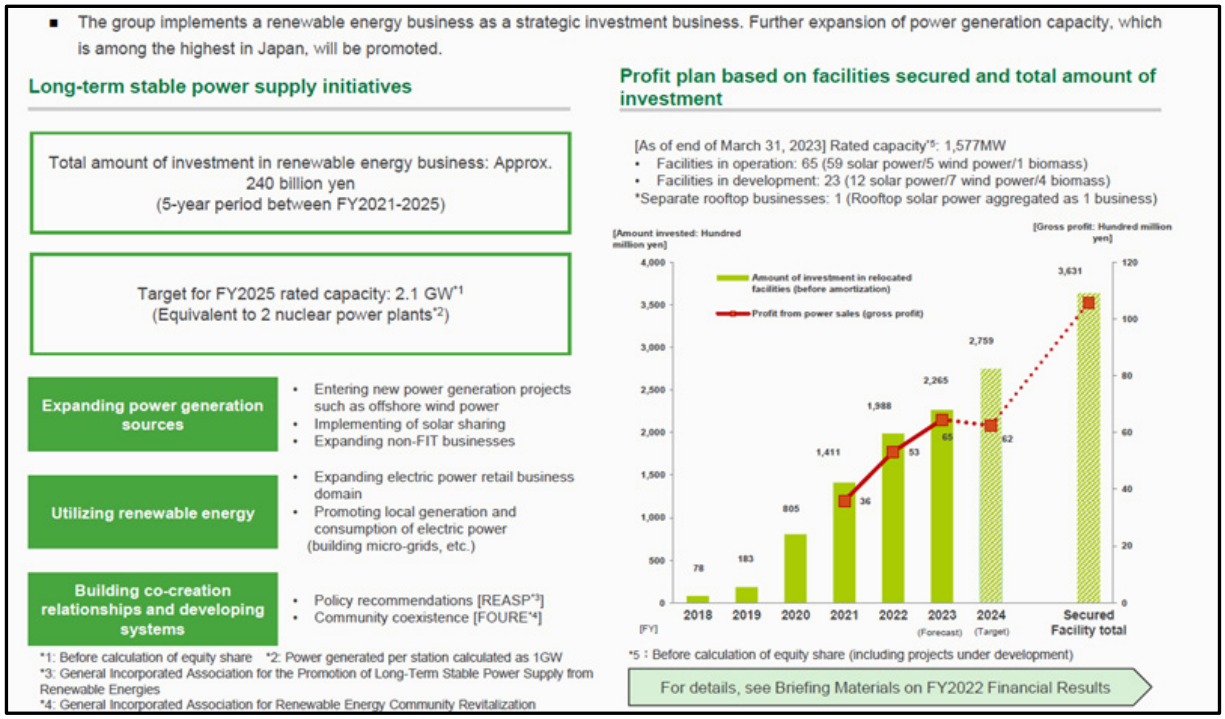
Tokyu Fudosan Holdings Group

Disclosures by the Tokyu Fudosan Holdings has been well regarded by investors for the alignment of its decarbonization goals with its business strategy, such as by disclosing both CO2 emissions and profits, linking its investment plans for the renewable energy business with its profit plans, and showing these along with its financing instruments (ESG bonds).

[Tokyu Fudosan Holdings' Roadmap towards Realization of Decarbonized Society]



Source: Tokyu Fudosan Holdings, "Transition Plan toward Decarbonized Society" p.10
(URL: https://tokyu-fudosan-hd-csr.disclosure.site/en/environment/transition-plan, Last access date: July 30, 2024)



■ The group implements a renewable energy business as a strategic investment business. Further expansion of power generation capacity, which is among the highest in Japan, will be promoted.

Long-term stable power supply initiatives

Total amount of investment in renewable energy business: Approx. 240 billion yen
(5-year period between FY2021-2025)

Target for FY2025 rated capacity: 2.1 GW*1
(Equivalent to 2 nuclear power plants*2)

Expanding power generation sources	• Entering new power generation projects such as offshore wind power • Implementing of solar sharing • Expanding non-FIT businesses
Utilizing renewable energy	• Expanding electric power retail business domain • Promoting local generation and consumption of electric power (building micro-grids, etc.)
Building co-creation relationships and developing systems	• Policy recommendations [REASP*3] • Community coexistence [FOURE*4]

*1: Before calculation of equity share *2: Power generated per station calculated as 1GW
*3: General Incorporated Association for the Promotion of Long-Term Stable Power Supply from Renewable Energies
*4: General Incorporated Association for Renewable Energy Community Revitalization

Profit plan based on facilities secured and total amount of investment

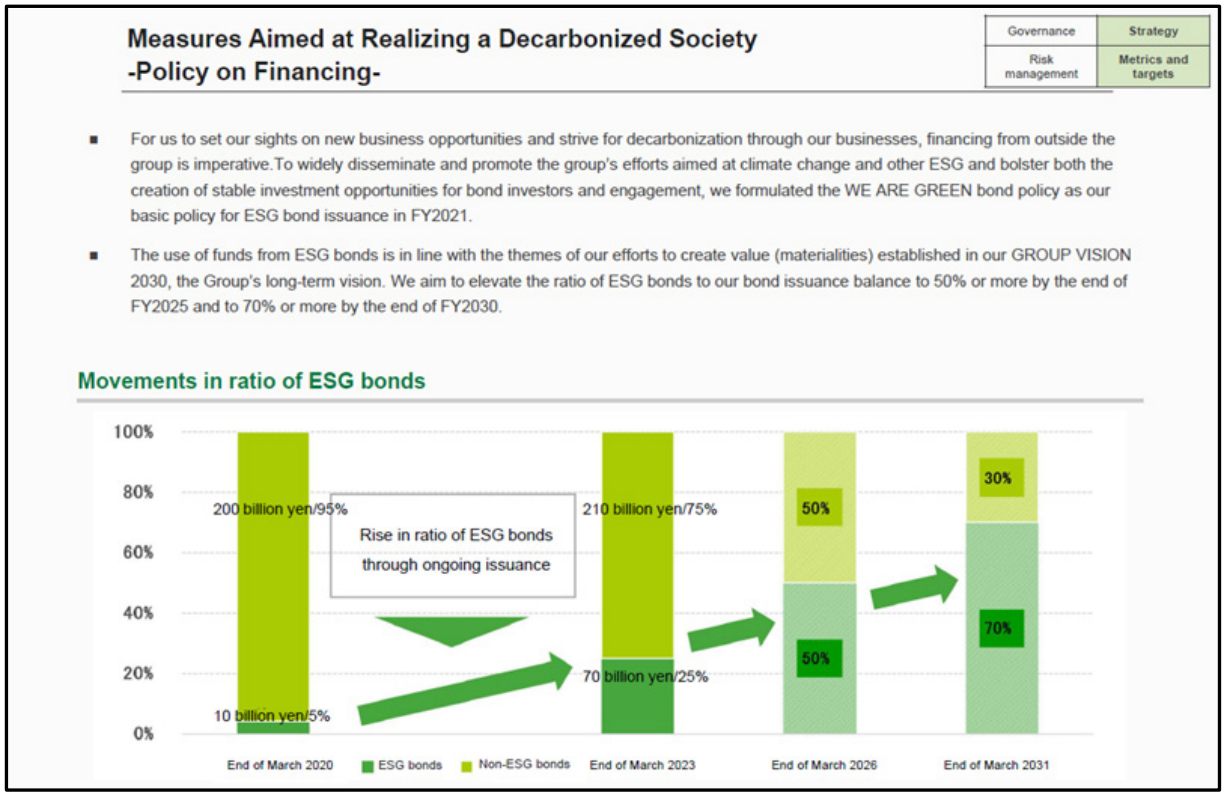
[As of end of March 31, 2023] Rated capacity*5: 1,577MW
- Facilities in operation: 65 (59 solar power/5 wind power/1 biomass)
- Facilities in development: 23 (12 solar power/7 wind power/4 biomass)

*Separate rooftop businesses: 1 (Rooftop solar power aggregated as 1 business)

*5 : Before calculation of equity share (including projects under development)

For details, see Briefing Materials on FY2022 Financial Results

Source: Tokyu Fudosan Holdings, "Transition Plan toward Decarbonized Society" p.12
(URL: https://tokyu-fudosan-hd-csr.disclosure.site/en/environment/transition-plan, Last access date: July 30, 2024)



Measures Aimed at Realizing a Decarbonized Society
-Policy on Financing-

Governance	Strategy
Risk management	Metrics and targets

■ For us to set our sights on new business opportunities and strive for decarbonization through our businesses, financing from outside the group is imperative.To widely disseminate and promote the group's efforts aimed at climate change and other ESG and bolster both the creation of stable investment opportunities for bond investors and engagement, we formulated the WE ARE GREEN bond policy as our basic policy for ESG bond issuance in FY2021.

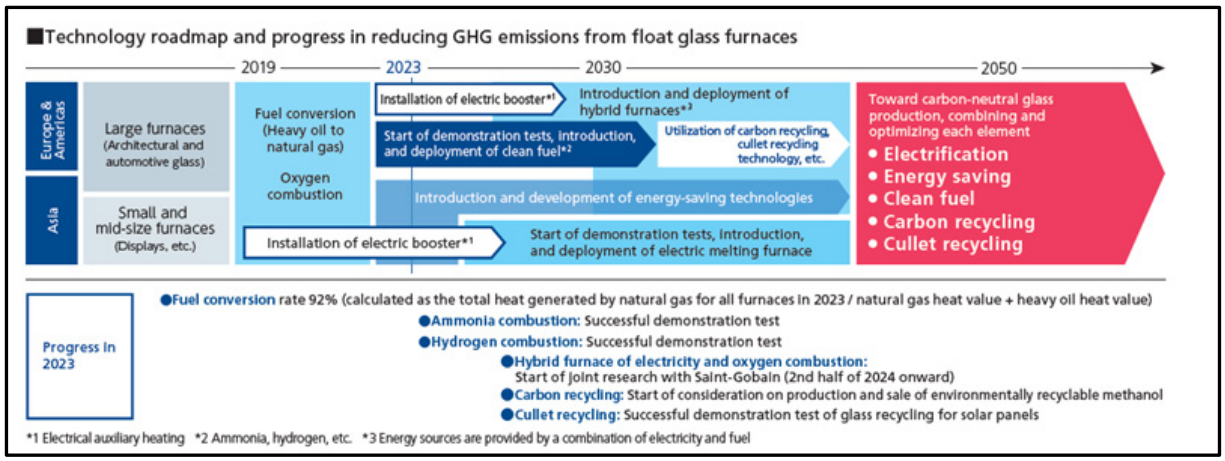
■ The use of funds from ESG bonds is in line with the themes of our efforts to create value (materialities) established in our GROUP VISION 2030, the Group's long-term vision. We aim to elevate the ratio of ESG bonds to our bond issuance balance to 50% or more by the end of FY2025 and to 70% or more by the end of FY2030.

Movements in ratio of ESG bonds

Source: Tokyu Fudosan Holdings, "Transition Plan toward Decarbonized Society" p.13
(URL: https://tokyu-fudosan-hd-csr.disclosure.site/en/environment/transition-plan, Last access date: July 30, 2024)

AGC Group

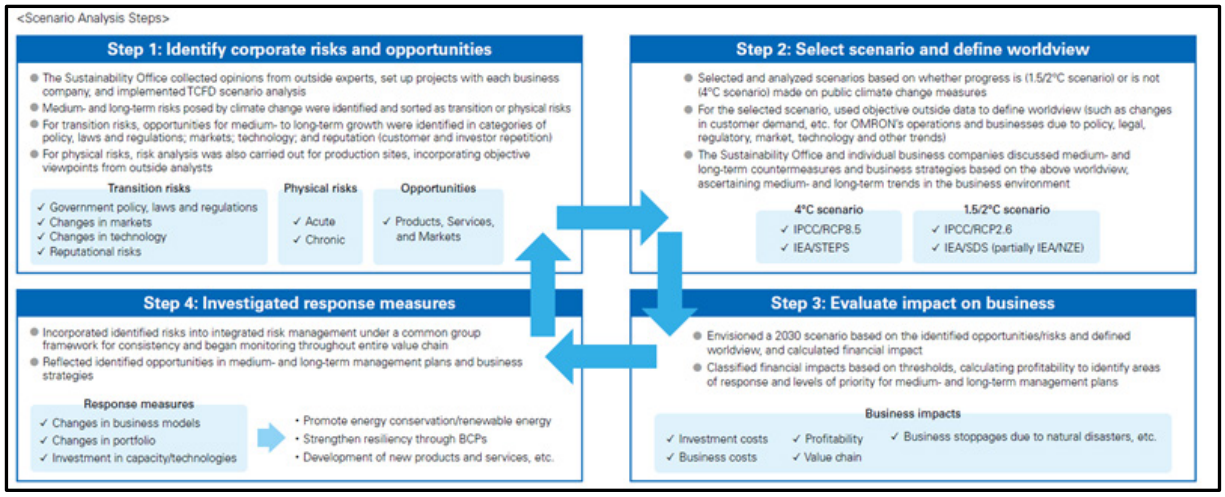
The company discloses the roadmap for technologies to reduce GHG emissions in float glass melting furnaces, which emit the largest amount of GHG in the glass production process, and is well regarded by investors for promoting understanding of technology transformation in the course of transition.



Source: AGC, "AGC Integrated Report 2024" p.66
(URL: https://www.agc.com/en/sustainability/book/, Last access date: July 30, 2024)

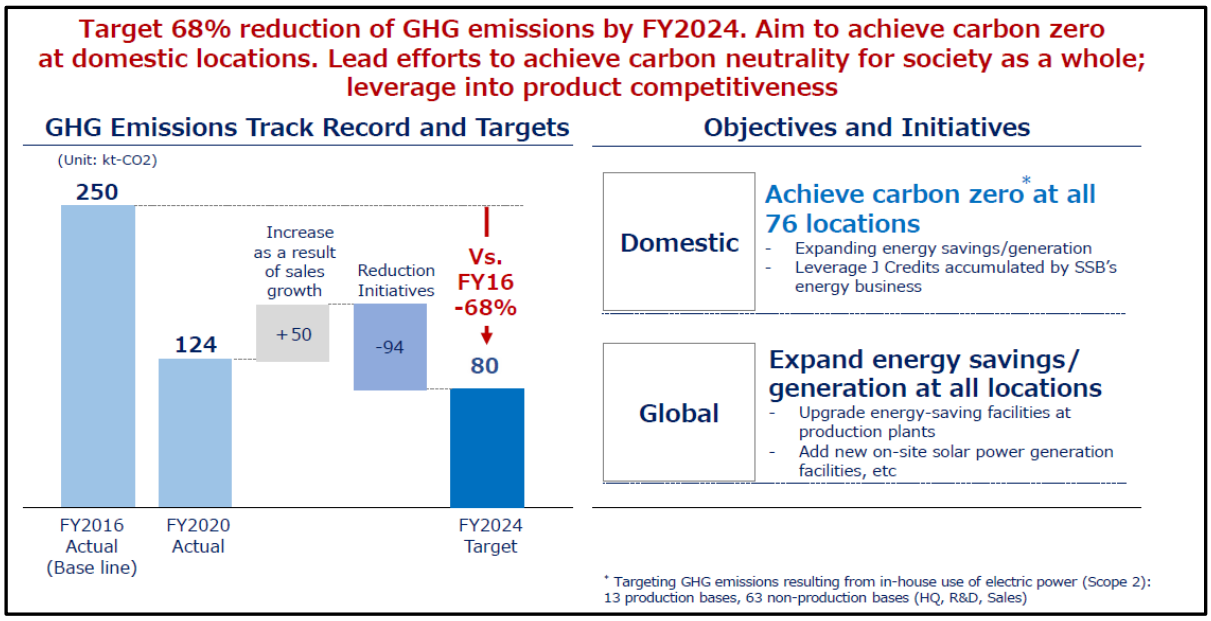
Omron

Omron's integrated report provides details on the specific process of scenario analysis that forms the basis of the transition plan, and is well regarded by investors as being easy to understand in its relationship with the management plan.



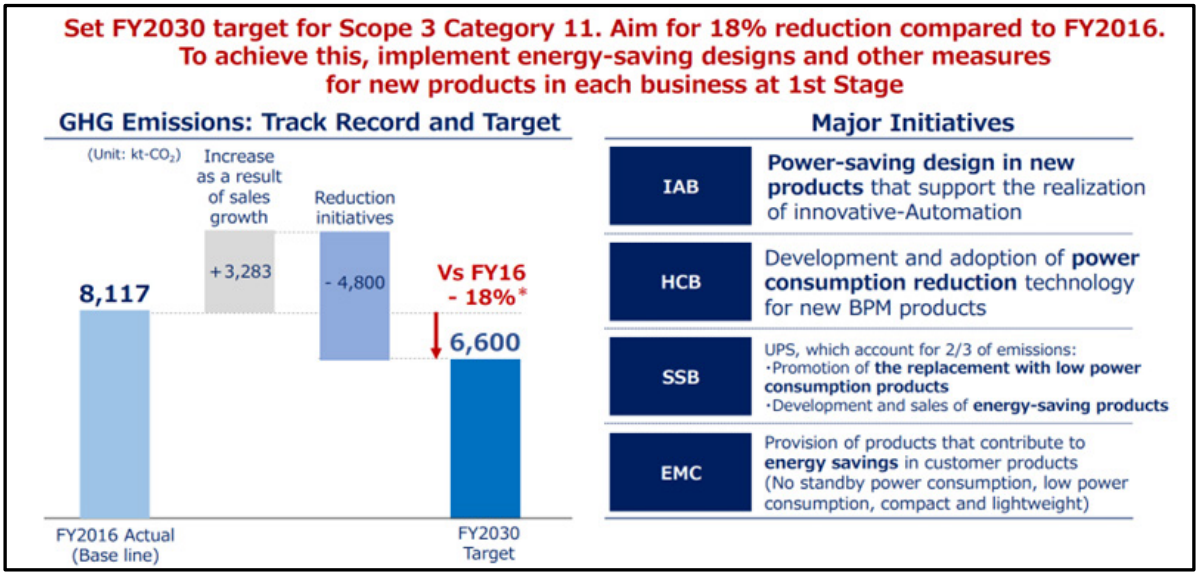
Source: Omron, "Integrated Report 2023" p.88
(URL: https://www.omron.com/global/en/integrated_report/, Last access date: July 30, 2024)

Furthermore, in the explanatory materials for the long-term vision and medium-term management plan, GHG reduction and the details of the initiatives is presented in a waterfall chart, and is well regarded for its ease of understanding of the transition plan's position in the growth strategy.



Source: Omron, "Long-Term Group Vision SF2030 Medium-Term Management Plan SF 1st Stage Investor Briefing" p.48
(URL: https://www.omron.com/global/en/ir/irlib/sf_info/ , Last access date: July 30, 2024)
*The targets for FY2024 GHG emissions (Scope 1 and 2) were revised in May 2024, and the revised targets are shown in the above figure.

The disclosure of the revised targets and initiatives for its transition plan for Scope 3 Category 11, which is important for an electrical equipment manufacturer, is also highly regarded.



Source: Omron, "Long-Term Group Vision SF2030 Medium-Term Management Plan SF 1st Stage Investor Briefing" p.49
(URL: https://www.omron.com/global/en/ir/irlib/sf_info/ , Last access date: July 30, 2024)

ITOCHU Corporation

With regard to transition risk and physical risk, ITOCHU Corporation has described the business transition for which these are the main issues, and has also formulated a financial plan based on the business transition plan. It contains descriptions on governance and explanations on financial strategy such as the issuance of SDGs bonds and has been appreciated by investors as useful information to understand the approach of formulating transition plans.

Financial Strategy

The Division Company Management Committee (DMC) conducts annual reviews of business risks and opportunities, including those related to climate change. Each DMC examines business transition plans, and then drafts annual financial plans. The annual financial plans for each company are presented for approval to the HMC, the executive body, and the Board of Directors, the supervisory body, before final approval by the Board of Directors. This final approval is subject to a comprehensive analysis and deliberations from an ESG perspective, including matters related to climate change. In order to facilitate a financial strategy based on our transition plan, we have developed a financing plan that limits the use of funds to projects that contribute to the SDGs.

1. SDGs Bond

   In March 2021, ITOCHU issued SDGs Bond (Sustainability Bond totaling US$500 million), which was allocated towards capital expenditures, manufacturing, R&D-related investments and procurement costs in climate-related subjects as well as R&D-related investments in procurement of certified food ingredients and costs of utilization of food residuals related to sustainable food systems like those indicated below:

   - Efforts to reduce greenhouse gas emissions: Renewable Energy (generation and storage)
   - Efforts to reduce greenhouse gas emissions in FamilyMart
   - Sustainable Food System: Expanding procurement of certified food ingredients and utilization of food residuals

2. Green Loan

   In September 2023, ITOCHU entered into the green loan agreement with Sumitomo Mitsui Trust Bank, Limited. The green loan will be used for our qualified projects (renewable energy power generation projects, energy from waste projects, and projects for the circular economy).

   Reference: Sustainable Finance

We confirmed that implementing these types of transition plans and financial strategy will enable us to maintain resilient business operations, even in over the medium- and long-term, for Group businesses, products, and services. Beyond the scope of applicability to this scenario analysis, ITOCHU is engaged in diverse business activities in various regions. Those business activities are also impacted by climate change. However, at this point of time, we have determined that the impact on Group overall earnings caused by risks associated with each individual business activity would be limited.

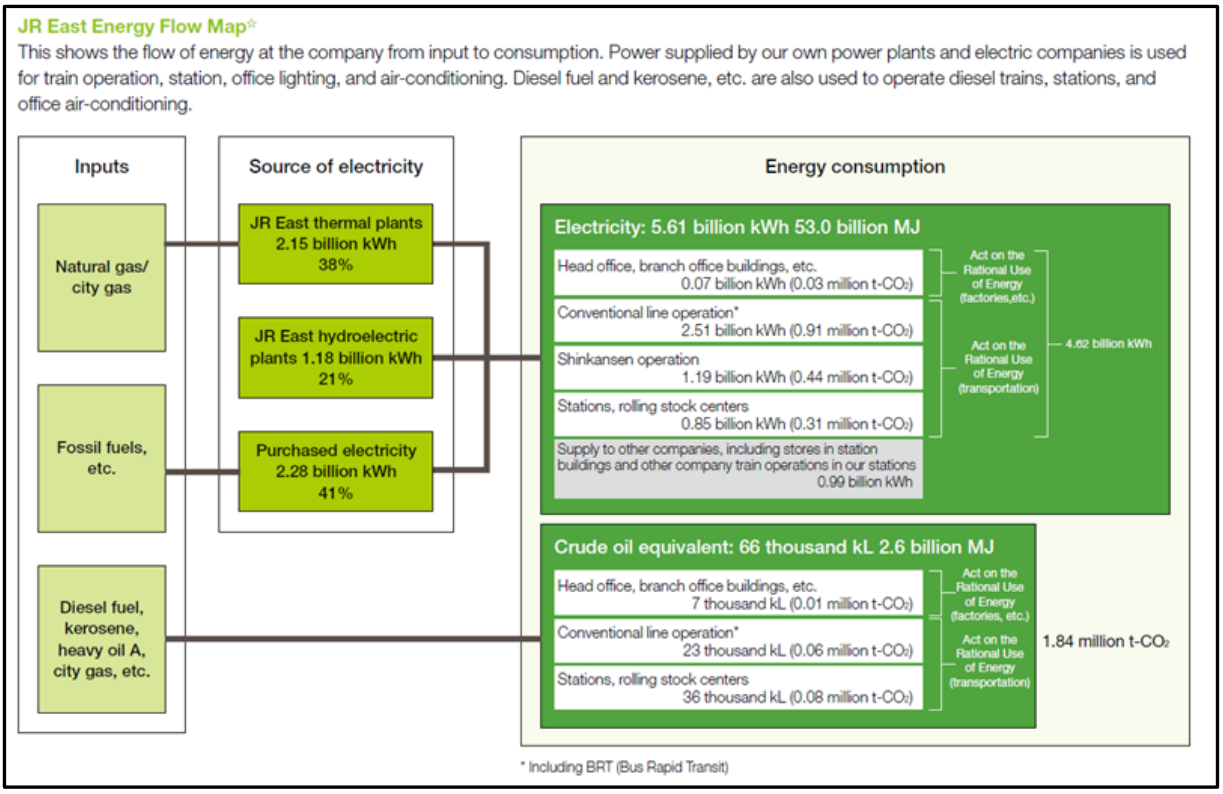
To confirm the impact of climate change on overall Group business, we will continue to conduct analyses of both transition and physical risks. We will further identify and organize fields susceptible to significant impact and evaluate response policies based on an order of priority given to areas requiring a response.

Source: Itochu Corporation, "Climate Change (Information Disclosure Based on TCFD Recommendations)" (URL: https://www.itochu.co.jp/en/csr/environment/climate_change/index.html, Last access date: July 30, 2024)

(3) Business Description

JR East (East Japan Railway) Group

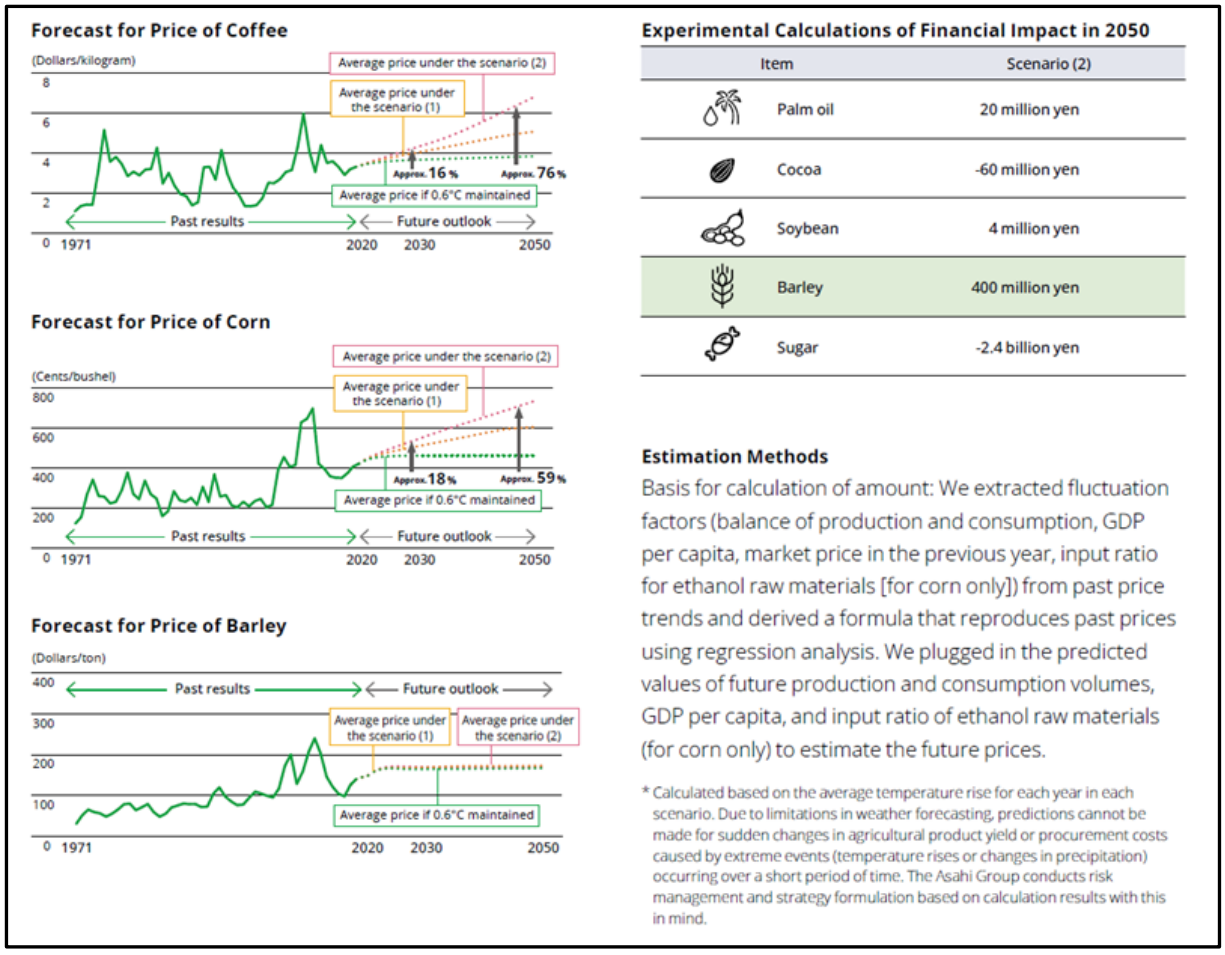
This report presents the company's energy flow and the CO2 emission sources resulting from it in an easy-to-understand format and has been well regarded as a reference for investors when evaluating various measures and issues for the transition.



Source: East Japan Railway Company, "Integrated Report 2023" p.86 (Figures are for FY2022)
(URL: https://www.jreast.co.jp/e/environment/, Last access date: July 30, 2024)

Asahi Group

The company discloses scenario analyses of key raw materials and calculates its cost impact, which are prerequisites for analyzing the company's business. Investors regard highly the identification of items such as capital allocation and scale.



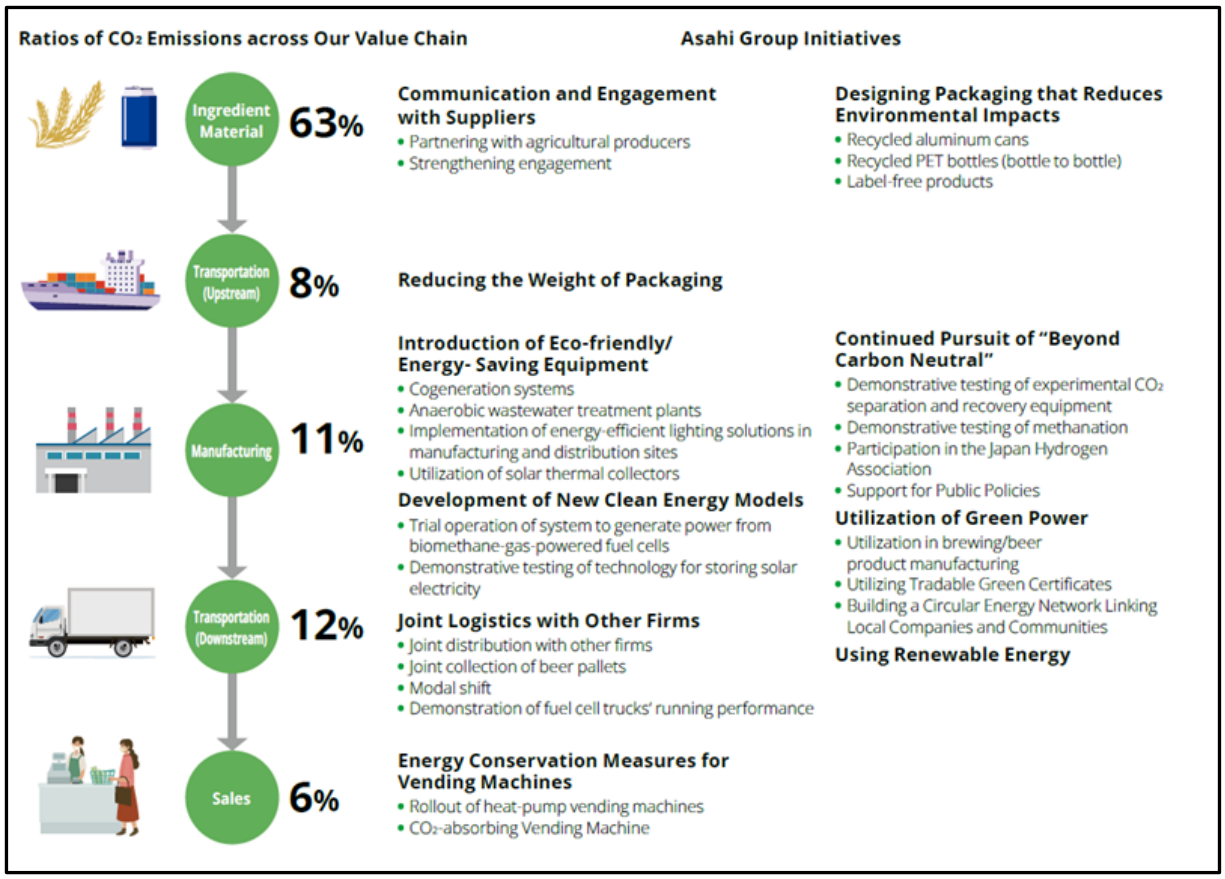
Source: Asahi Group Holdings, "Asahi Group Sustainability Report June 2024" p.168
(URL: https://www.asahigroup-holdings.com/en/sustainability/library/, Last access date: July 30, 2024)

3. Reaching out to Others

(1) Working with Stakeholders

Asahi Group

The disclosure conveys the importance of the company's engagement towards its value chain including suppliers and logistics by disclosing their relative proportion of CO2 emissions, and has been regarded by investors as helpful.



Source: Asahi Group Holdings, "Asahi Group Sustainability Report June 2024" p.134
(URL: https://www.asahigroup-holdings.com/en/sustainability/library/, Last access date: July 30, 2024)

National Australia Bank

As a financial institution, the bank's report is valued by investors for explaining engagement initiatives (assessment of transition maturity) to facilitate transition of loan recipients.

Supporting customers with their transition plans

Understanding customers' transition maturity

We are building on our efforts to support the economy's largest businesses with their climate transition. Considerable capital is required to help customers decarbonise, and this represents a significant opportunity.

In 2023, NAB completed its work to assess the transition maturity for 100 of our largest GHG-emitting customers using a Transition Maturity Diagnostic (the "Diagnostic"), building on the work commenced in 2021.

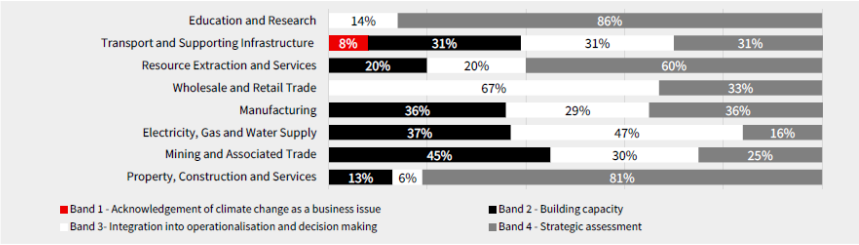
The Diagnostic was designed with reference to global frameworks such as the Transition Pathway Initiative, a global asset owners initiative which assesses companies' preparedness to transition to a low-carbon economy. The work enabled NAB to form a view on the transition maturity of the assessed high emitting customers and to build our understanding of the transition maturity of different sectors across the economy.

Key findings

The work shows that 71% of the customers assessed are rated relatively transition mature against the Diagnostic, scoring in the top two bands of the Diagnostic's transition maturity scale. In addition, 100% acknowledge climate change as a business issue while 72% are reporting or have committed to report under the TCFD framework, and 67% have set a goal to be net zero by 2050 or sooner.

Drawing on this initial exercise, NAB has prioritised embedding criteria in decision-making for customers in sectors where NAB has set decarbonisation targets. Refer to *Metrics and targets* on page 40 for details on how these decarbonisation targets are being operationalised.

Figure 2: Transition maturity of 100 of our largest emitting customers by sector(1)



(1) The Diagnostic assists in the classification of transition maturity in the following bands: 0 – Unaware of (or not acknowledging) climate change as a business issue, 1 – Acknowledgement of climate change as a business issue, 2 – Building capacity, 3 – Integration into operational decision making, 4 – Strategic assessment. Note, no clients were assessed at the '0' level of maturity. Percentage breakdown per sector may not sum to 100 due to rounding.

Source: National Australia Bank, "Climate Report 2023" p.12
(URL: https://www.nab.com.au/about-us/shareholder-centre/financial-disclosures-and-reporting/annual-reporting-suite, Last access date: July 30, 2024)

Disclaimer: The inclusion of case examples does not guarantee that the recommended disclosure of transition plans is fully met.

Appendix

Appendix 1: TCFD Consortium Planning Committee Members and TCFD Consortium Members

(1) Member of the TCFD Consortium Steering Committee

*In alphabetical order

[Chair]

Kunio Ito	Director of Hitotsubashi CFO Education and Research Center

[Steering Committee member]

Takao Aiba	Project General Manager, Environment Affairs and Engineering Management Div., Carbon Neutral Engineering Development Center, Toyota Motor Corporation
Takashi Furukawa	Senior Chief, Responsible Care Dept., SUMITOMO CHEMICAL Co., Ltd.
Yasunori Iwanaga	Chief Responsible Investment Officer, Amundi Japan Ltd.
Masaaki Izumiyama	Executive Counselor, General Manager, Head of Environmental Planning Div., Nippon Steel Corporation
Masayuki Matsuyama	Senior Economist (D.B.A), Development Bank of Japan Inc.
Masaaki Nagamura	Fellow International Initiatives, Tokio Marine Holdings, Inc.
Sohei Nagata	Manager, Government Relations Department, Meijiyasuda Life Insurance Company
Kenji Shima	Senior Vice President, Senior Sustainability Expert, Sustainability Planning Department, Sumitomo Mitsui Banking Corporation
Kyoko Shoji	General Manager, Sustainability Department, Mitsubishi Corporation
Hiroyuki Takahashi	General Manager, ESG Office, Tokyo Electric Power Company Holdings, Inc.
Kazunori Takahashi	Senior Advisor, Sustainability Promotion Division, Hitachi, Ltd.
Gosuke Tateno	Manager, ESG Division, Kao Corporation
Toru Terasawa	Executive ESG Advisor, Investment Div., Asset Management One Co., Ltd.
Hiroyuki Tezuka	Fellow, JFE Steel Corporation

(Note) Affiliation and position as of July 26, 2024.

(2) Number of TCFD Consortium members

870 organizations (as of July 31, 2024)

Appendix 2: Reference

ACT, 2019, Assessing low Carbon Transition Framework

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Published September 2024