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Nishimatsu Climate Information 2024



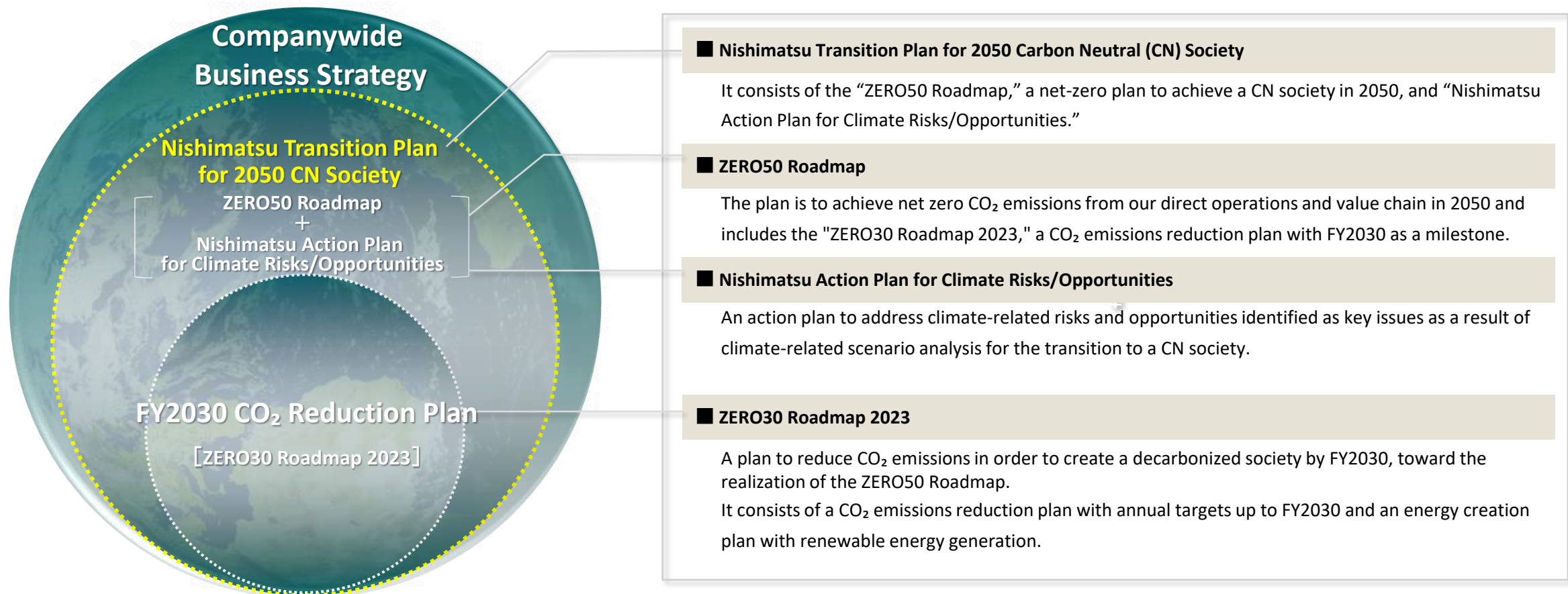
NISHIMATSU

June 2024

Action Plan to Realize CN Society

Since last year, the global average temperature has been the highest on record each month, and the effects of climate change are becoming a reality. Now is the time to accelerate climate action around the world.

Recognizing that addressing climate change is an important management issue in the companywide business strategy, Nishimatsu Construction has developed the Transition Plan for 2050 Carbon Neutral (CN) Society. We pledge to meet the expectations of our stakeholders by working diligently to implement the Nishimatsu Transition Plan for CN Society and by contributing to solving social issues related to climate change through our business activities, with the aim of further enhancing our corporate value.



1	Highlights and Topics	3
2	Governance and Risk Management	6
3	Strategy (Scenario Analysis)	9
4	Metrics and Targets (Transition Plan)	15
5	Relevant Data and Results	23
6	Additional Information	27
	References	31



1 Highlights and Topics

Strengthen measures for climate risks and opportunities

[→ P18 - 20](#)

To enhance resilience toward a carbon neutral (CN) society, we have implemented management through a PDCA cycle that clearly defines key performance indicators (KPIs), quantitative targets, progress monitoring, and initiatives for the next fiscal year and beyond in combination with our existing response measures for climate-related risks and opportunities.

Listed on CDP's Supplier Engagement Rating Leaderboard

We have earned a place on the "Supplier Engagement Rating Leaderboard" by CDP*, an international NGO specializing in environmental assessments, receiving the highest rank "A" in the "Supplier Engagement Rating" for climate change in 2023.

To achieve carbon neutrality in 2050, we are proactively promoting engagement with suppliers through sharing information and demonstrating introduction of specific CO₂ reduction measures as an effort to encourage their CO₂ reduction activities in addition to our own direct CO₂ reduction efforts.

[CDP Supplier Engagement Rating] <https://www.cdp.net/en/supply-chain/supplier-engagement-rating>

[Listed on the CDP's Supplier Engagement Rating Leaderboard] <https://www.nishimatsu.co.jp/news/2024/cdp.html>



Received the Excellence Award at the 9th Sustainable Finance Awards

In July 2023, we formulated a Sustainability Linked Finance Framework based on the "ZERO30 Roadmap 2023" and issued a Sustainability Linked Bond (hereafter "SLB"). Our sustainability targets include the percentage reduction of Scope 1+2 and Scope 3 (Category 11) CO₂ emissions. We will continue to promote efforts to achieve our goals through flexible capital deployment using sustainable finance such as SLB.

Our funding raised through the SLB received the Excellence Award at the 9th Sustainable Finance Awards sponsored by the Research Institute for Environmental Finance.

[Sustainable Finance] <https://www.nishimatsu.co.jp/esg/s-finance/>

[Received the Excellence Award at the 9th Sustainable Finance Awards] <https://www.nishimatsu.co.jp/news/2024/9.html>

*CDP: A British charity-controlled non-governmental organization (NGO) established in 2000.

CDP's environmental information disclosure and its assessment process are widely recognized around the world as the global standard for corporate environmental information disclosure.

Currently, CDP collaborates with 740+ signatory financial institutions with assets of more than USD 137 trillion. In 2023, over 25,000 organizations worldwide, including more than 23,000 companies equivalent to two-thirds of the global market capitalization and over 1,100 municipalities, disclosed environmental information through CDP questionnaire.



Governance and Risk Management

Review of governance and risk management structure

Until now, Nishimatsu has established a management structure based on the "Environment Committee" for key items and response measures for climate-related risks and opportunities, as well as progress management. However, we have recently reevaluated our sustainability promotion structure and decided to establish a new "Sustainability Strategy Meeting" from FY2024, integrating the "Environment Committee" into this new management structure.

Oversight level

Oversight by Board

We believe that strategies to avoid, reduce, and transfer climate-related risks and to realize climate-related opportunities are positioned as important management issues, and that appropriate corporate responses will lead to sustainable growth. To this end, the "Board of Directors" discusses the reports from the "President and General Managers Meeting" on climate-related issues and oversees specific response measures and progress management related to climate-related risks and opportunities.

Chief executive level

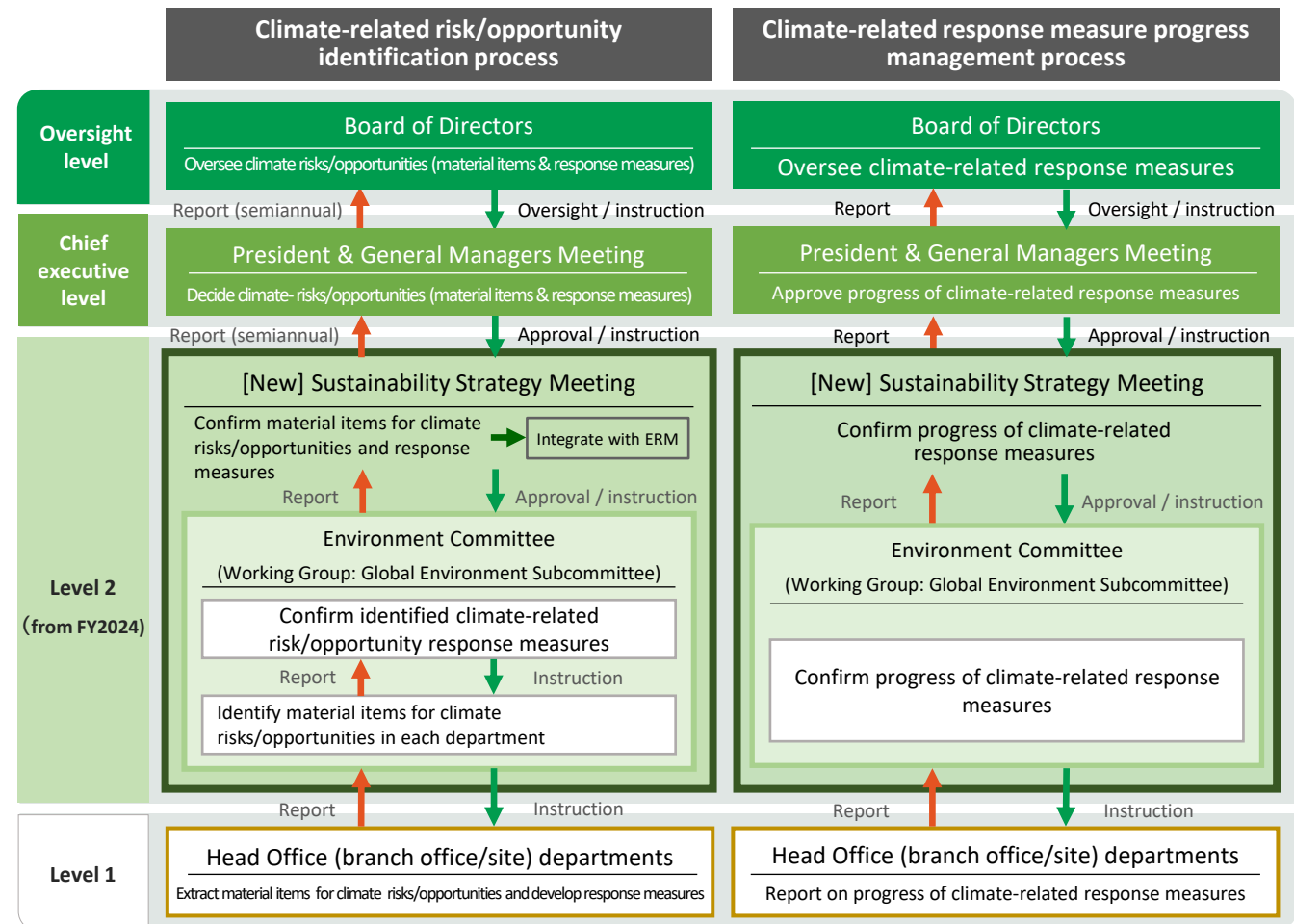
Decision and Approval made by President and General Managers Meeting

Reported on climate-related issues by the "Sustainability Strategy Meeting," the "President and General Managers Meeting" makes decisions (checks, approves) on specific response measures and progress management related to climate-related risks and opportunities as responsibility of chief executive level, and reports to the "Board of Directors" twice a year.

(Level 1 -) Level 2

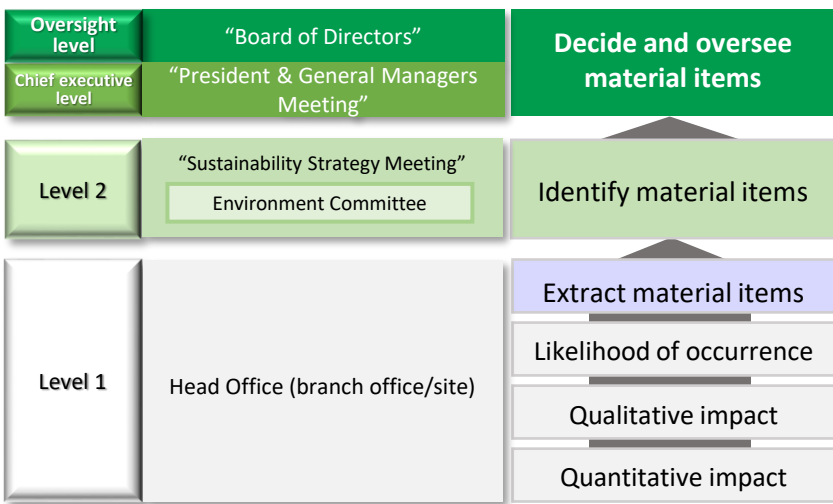
Management by Sustainability Strategy Meeting

Head Office (branch office/site) departments extract material items for climate risks/opportunities, develop risk/opportunity response measures, and report on the progress. The "Environment Committee (Working Group: Global Environment Subcommittee)" established within the "Sustainability Strategy Meeting" receives reports from the "Head Office (branch office/site) departments," identifies extracted climate-related risks and opportunities, confirms response measures and progress, and reports to the Sustainability Strategy Meeting. The "Sustainability Strategy Meeting" makes a final confirmation, integrates it with Enterprise Risk Management (ERM), and reports to the "President and General Managers Meeting."



After the “material items for climate risks/opportunities” are primarily extracted based on an evaluation of three factors: quantitative and qualitative impacts and likelihood of occurrence, those which have significant impact in terms of finance and strategy are secondarily extracted (i.e. identified) and determined as material items. Progress management involves the process of checking progress reports on “material items for climate risks/opportunities” at each level and providing instructions to lower levels as necessary.

(1) Process for determining material items for risks/opportunities



Regarding the identified material items for risks/opportunities, final decisions are made with the responsibilities of chief executive and oversight levels.

From the material items primarily extracted, those which have significant impact in terms of finance and strategy are secondarily extracted (i.e. identified).

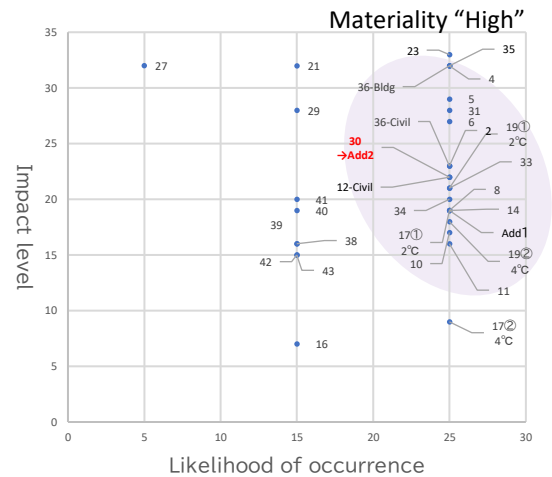
Material items are primarily extracted based on three factors: quantitative and qualitative impacts and likelihood of occurrence.

The likelihood of occurrence is scored in certain categories.

The qualitative impact is determined based on the interest of stakeholders such as customers, suppliers, government bodies, and investors, according to evaluation and score allocation.

The quantitative impact is determined according to evaluation and score allocation based on the operating income.

Image of materiality evaluation process



(2) Progress management process for risk/opportunity response measures



- The Board of Directors oversees the progress report from the President and General Managers Meeting on response measures in "material items for climate risks/opportunities" and provides instructions to the President and General Managers Meeting as necessary.
- The President and General Managers Meeting approves the progress of response measures in "material items for climate risks/opportunities" from the Sustainability Strategy Meeting and provides instructions to the Sustainability Strategy Meeting as necessary.
- The Sustainability Strategy Meeting confirms the progress of response measures in "material items for climate risks/opportunities" from the Environment Committee and provides instructions to the Environment Committee as necessary.
- The Environment Committee confirms the progress of response measures in "material items for climate risks/opportunities" from “Head Office (branch office/site),” and provides instructions to the “Head Office (branch office/site)” as necessary and reports to the Sustainability Strategy Meeting.

Head Office (branch office/site) departments report the progress of the response measures in "material items for climate risks/opportunities" to the Environment Committee.

3 Strategy (Scenario Analysis)

Adopted scenarios and target businesses and time horizons for analysis

We have conducted scenario analysis as recommended by the TCFD*1 to respond to a highly uncertain future. It covers not only our mainstay "Construction Business" but also "Asset Value-Added Business" and "Regional Environmental Solutions Business," taking into account the entire value chain including partner companies and material procurement. In addition, since climate-related risks and opportunities can have long-term impacts, we have set the period up to FY2025, the ending year of the medium-term management plan, as "short-term," the period from FY2026 to FY2030 as "medium-term," and the period after FY2030 as "long-term."

Estimated temperature rise	Adopted scenario	Assumed environment	Target business	Time horizon for analysis (FY)
1.5°C	[Transition] IEA*2 NZE*3	It shows a pathway to stabilize the global average temperature at 1.5°C above the pre-industrial level. A scenario in which clean energy policies and investments surge, and developed countries reach net zero ahead of others.	<ul style="list-style-type: none"> ● Construction Business (domestic civil engineering and building construction, international) ● Asset Value-Added Business ● Regional Environmental Solutions Business 	Short-term: 2020-2025 Medium-term: 2026-2030 Long-term: 2031-2050
	[Physical] SSP*4 1-1.9	Under sustainable development, climate policies to limit the temperature rise to 1.5°C or lower from the pre-industrial level are introduced. Expected to achieve net-zero CO ₂ emissions in mid-21st century.		
4°C	[Transition] IEA STEPS*5	A scenario that reflects specific policies announced by each country at this stage. The temperature rise exceeding 2°C is assumed.		
	[Physical] SSP5-8.5	High-level reference scenario with no climate policy introduced under fossil fuel dependent development.		

*1 TCFD: Task Force on Climate-related Financial Disclosures. The Task Force, established by the Financial Stability Board (FSB) following a request from the G20, encourages companies and others to understand and disclose the financial impacts of climate change. The TCFD dissolved in October 2023, transferring its oversight function to the International Financial Reporting Standards (IFRS) Foundation.

*2 IEA: International Energy Agency

*3 NZE: Net Zero Emissions by 2050 Scenario

*4 SSP: Shared Socioeconomic Pathways

*5 STEPS: Stated Policies Scenario

Using the scenario analysis in the respective views of the world of 1.5°C and 4°C temperature rise compared to pre-industrial times, we have identified climate-related risks and opportunities based on the process for determining material items.

Furthermore, financial impacts on our business activities and the affected periods are summarized below.

Material items for climate-related risks

Risk classification	Risk: material items	Financial impact	Impact period			Applicable scenario
			Short	Mid	Long	
Transition risk	Regulation [Strengthened policies] Response to the full-scale introduction of carbon tax	Cost increase				1.5°C
	Technology [Decarbonization needs] Technological response related to environmentally-friendly concrete	Sales decrease				1.5°C
	Technology [Decarbonization needs] Technological response related to wooden high-rise buildings	Sales decrease				1.5°C
Physical risk	Chronic risk [Temperature rise] Response to a decrease in skilled workers (consideration of power-saving construction methods)	Sales decrease				4°C 1.5°C
	Chronic risk [Temperature rise] Response to a decrease in skilled workers (unmanned and automated operation)	Sales decrease				4°C 1.5°C
	Chronic risk [Temperature rise] Response to a decrease in skilled workers (Increase in labor costs, construction robots)	Cost increase				4°C

[Analyzed time horizon (FY)] Short: 2020-2025; Medium (Mid): 2026-2030; Long: 2031-2050

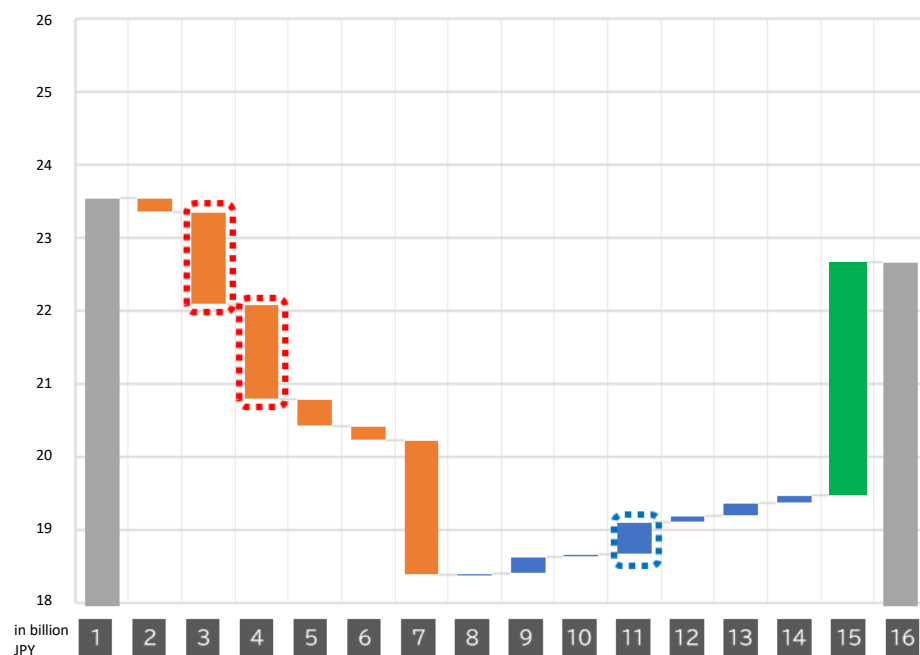
Material items for climate-related opportunities

Opportunity classification	Opportunity: material items	Financial impact	Impact period			Applicable scenario
			Short	Mid	Long	
Resource efficiency	[Decarbonization needs] Increased needs for energy-efficient rental buildings	Sales increase				1.5°C
	[Decarbonization needs] Increased needs for construction of ZEB (Net Zero Energy Buildings)	Sales increase				4°C 1.5°C
Products and services	[Decarbonization needs] Increase in renewable energy-related construction	Sales increase				1.5°C
	[Decarbonization needs] [Strengthened policies] Response to regional environmental issues (1) • Increased demands for renewable energy	Sales increase				1.5°C
	[Decarbonization needs] [Strengthened policies] Response to regional environmental issues (2) • Increased demands for decarbonized community development projects (smart grid and power storage-related technologies)	Sales increase				1.5°C
Resilience	[Temperature rise] Increase in disaster recovery construction	Sales increase				4°C 1.5°C
	[Temperature rise][Strengthened policies] Increase in disaster prevention and mitigation construction	Sales increase				4°C 1.5°C

Financial impact assessment

The risks and opportunities identified as material items are expressed as their financial impacts on operating income in FY2021, and the changes in the amount of impact due to climate-related risk and opportunity factors as of FY2030 and FY2050 are compared and verified using waterfall charts.

FY2030: 1.5 °C Scenario



Major financial impacts:

[Risk] Sales loss due to delayed response to wooden high-rise buildings and increased business costs due to the full-scale introduction of carbon tax have a great impact. (3 • 4)

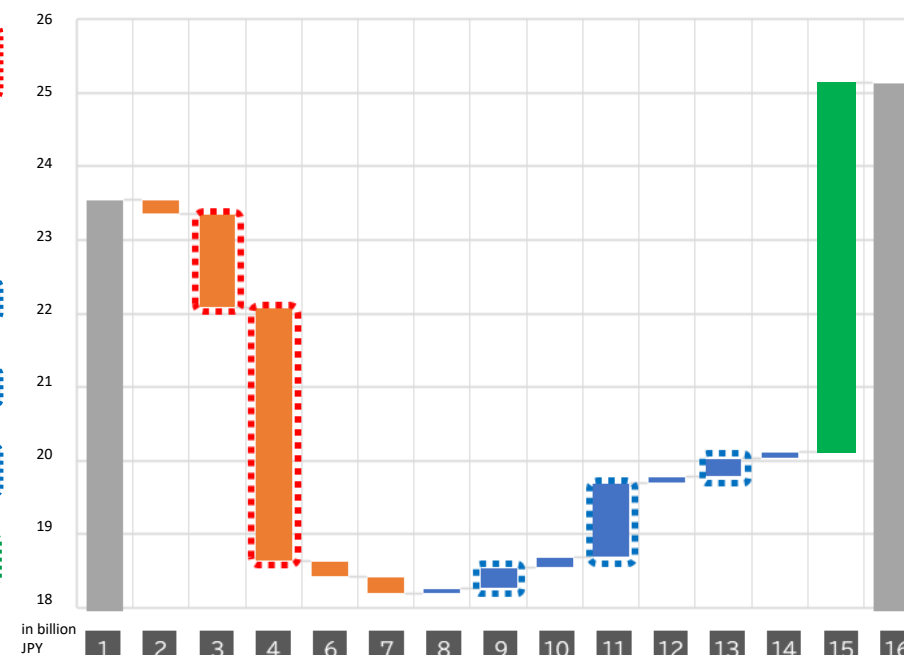
[Opportunity] Significant sales opportunities by responding to ZEB construction needs. (11)

- 1 Operating income (FY2021)
- 2 Response to decreased workers (unmanned/automated operation)
- 3 Response to wooden high-rise buildings
- 4 Full-scale introduction of carbon tax
- 5 Delayed development of environmentally-friendly concrete
- 6 Response to decreased workers (manpower-saving methods)
- 7 Response cost (2 to 6 costs total)
- 8 Increased needs for energy-efficient rental buildings
- 9 Increased demands for renewable energy
- 10 Expansion of decarbonized community development projects
- 11 Increased needs for ZEB construction
- 12 Increased disaster recovery construction
- 13 Expansion of renewable energy-related construction
- 14 Increased disaster prevention/mitigation construction
- 15 Profit recovery by risk response (2 to 6)
- 16 Operating income (FY2030 & FY2050)

See P19 and P20 for details for risk response and opportunity acquisition.

When there are changes or revisions to internal figures or parameters, the financial impact is reviewed as appropriate.

FY2050: 1.5 °C Scenario



Major financial impacts:

[Risk] Increased business costs due to the full-scale introduction of carbon tax have an extremely big impact, followed by the impact of sales loss due to delayed response to wooden high-rise buildings. (3 • 4)

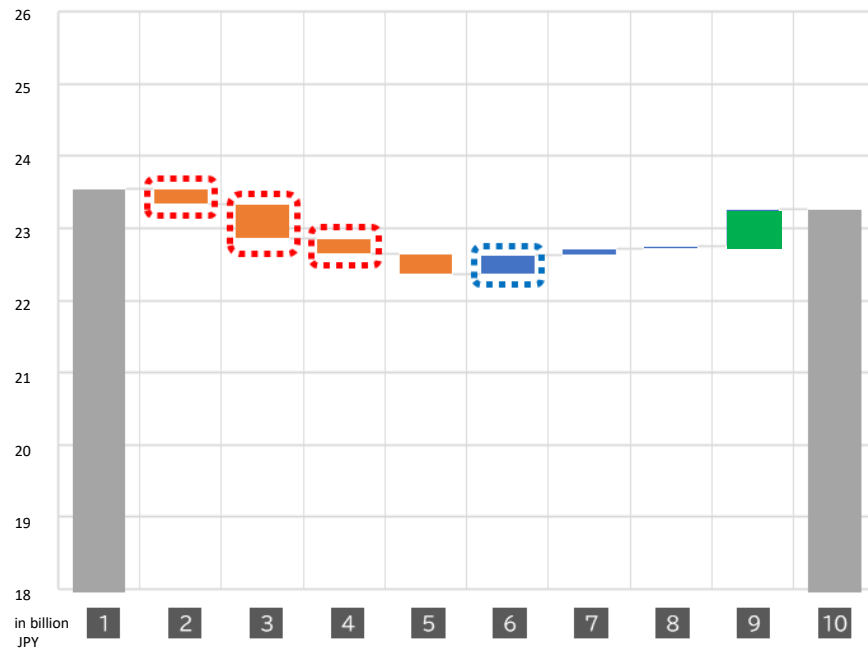
[Opportunity] Significant sales opportunities by responding to ZEB construction needs. (11)

[Opportunity] Expansion of opportunities for renewable energy-related construction and energy creation business. (9 • 13)

Financial impact assessment

The risks and opportunities identified as material items are expressed as their financial impacts on operating income in FY2021, and the changes in the amount of impact due to climate-related risk and opportunity factors as of FY2030 and FY2050 are compared and verified using waterfall charts.

FY2030: 4 °C Scenario



- 1 Operating income (FY2021)
- 2 Response to decreased workers (unmanned/automated operation)
- 3 Response to decreased workers (construction robots)
- 4 Response to decreased workers (manpower-saving methods)
- 5 Response cost (2 to 4 costs total)
- 6 Increased disaster prevention/mitigation construction
- 7 Increased disaster recovery construction
- 8 Increased needs for ZEB construction
- 9 Profit recovery by risk response (2 to 4)
- 10 Operating income (FY2030 & FY2050)

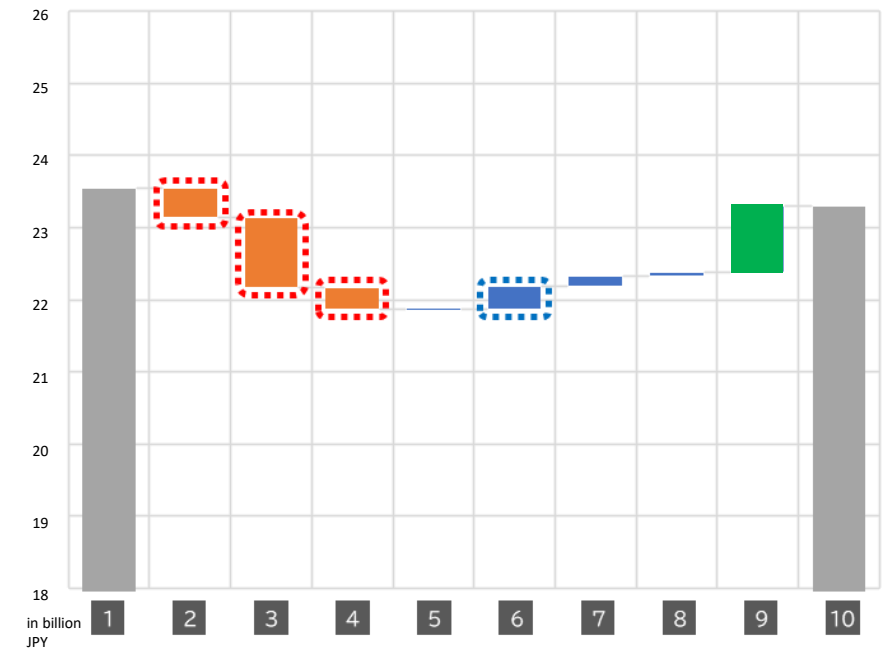
Major financial impacts:

- [Risk] In domestic building construction business, increased construction costs due to decrease in workers caused by rising temperatures have a relatively large impact. (3)
- [Risk] In domestic civil engineering business, sales loss due to delayed response (unmanned/automated operation, manpower-saving method) to decrease in workers caused by rising temperatures has the second largest impact after the above. (2 · 4)
- [Opportunity] An increase in disaster prevention and mitigation construction is expected, increasing sales opportunities. (6)

See P19 and P20 for details for risk response and opportunity acquisition.

When there are changes or revisions to internal figures or parameters, the financial impact is reviewed as appropriate.

FY2050: 4 °C Scenario



Major financial impacts:

- [Risk] In domestic building construction business, increased construction costs due to decrease in workers caused by rising temperatures have a significant impact. (3)
- [Risk] In domestic civil engineering business, sales loss due to delayed response (unmanned/automated operation, manpower-saving method) to decrease in workers caused by rising temperatures has the second largest impact after the above. (2 · 4)
- [Opportunity] An increase in disaster prevention and mitigation construction is expected, increasing sales opportunities. (6)

Scenario analysis result and resilience

■ 1.5°C scenario analysis result

We discovered that the risk of increased business costs due to the full-scale introduction of carbon tax will be very high as of 2050, followed by the impact of sales loss due to delayed response to wooden high-rise buildings. On the other hand, regarding opportunities, it is estimated that along with sales growth due to the needs for ZEB construction, the impact of opportunity acquisition for renewable energy and energy creation-related business will be relatively large as of 2050.

The financial impact on operating income shows a slight decrease as of 2030 compared to 2021, although profits will recover through risk response, and an increase as of 2050.

■ 4°C scenario analysis result

It is found out that the decline in labor force associated with rising temperatures has a significant impact on both sales and costs, and it will be more noticeable in 2050 than in 2030.

On the other hand, we reaffirmed that disaster prevention and mitigation construction is an opportunity to have the greatest impact.

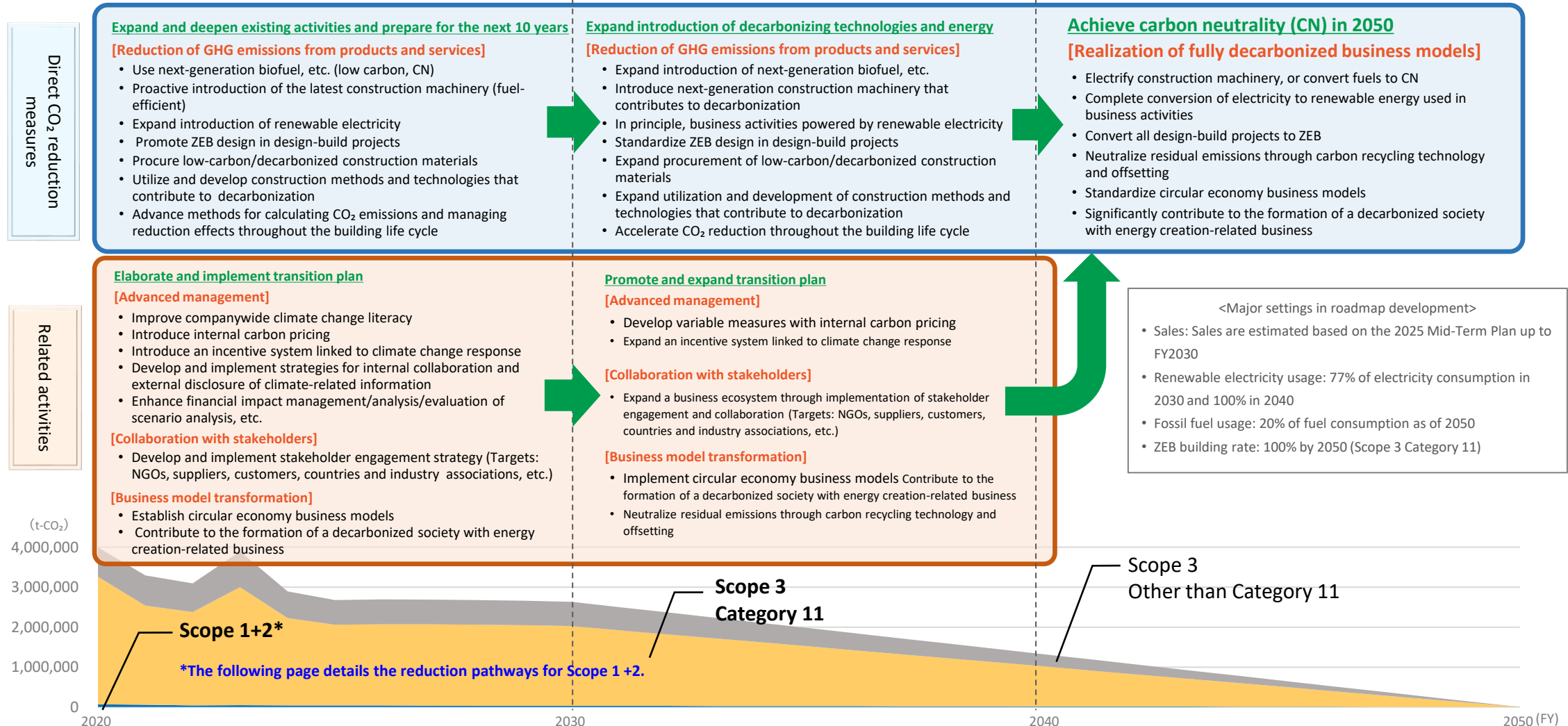
Looking at the financial impact on operating income, in both 2030 and 2050, operating income will decrease only mildly from the 2021 level as a result of the profit recovery through risk response.

With regard to resilience to climate change, after verifying the financial impact on operating income under climate-related scenarios of 1.5°C and 4°C, we confirmed that there would be no significant financial impact.

Metrics and Targets (Transition Plan)

[ZERO50 Roadmap / entire value chain]

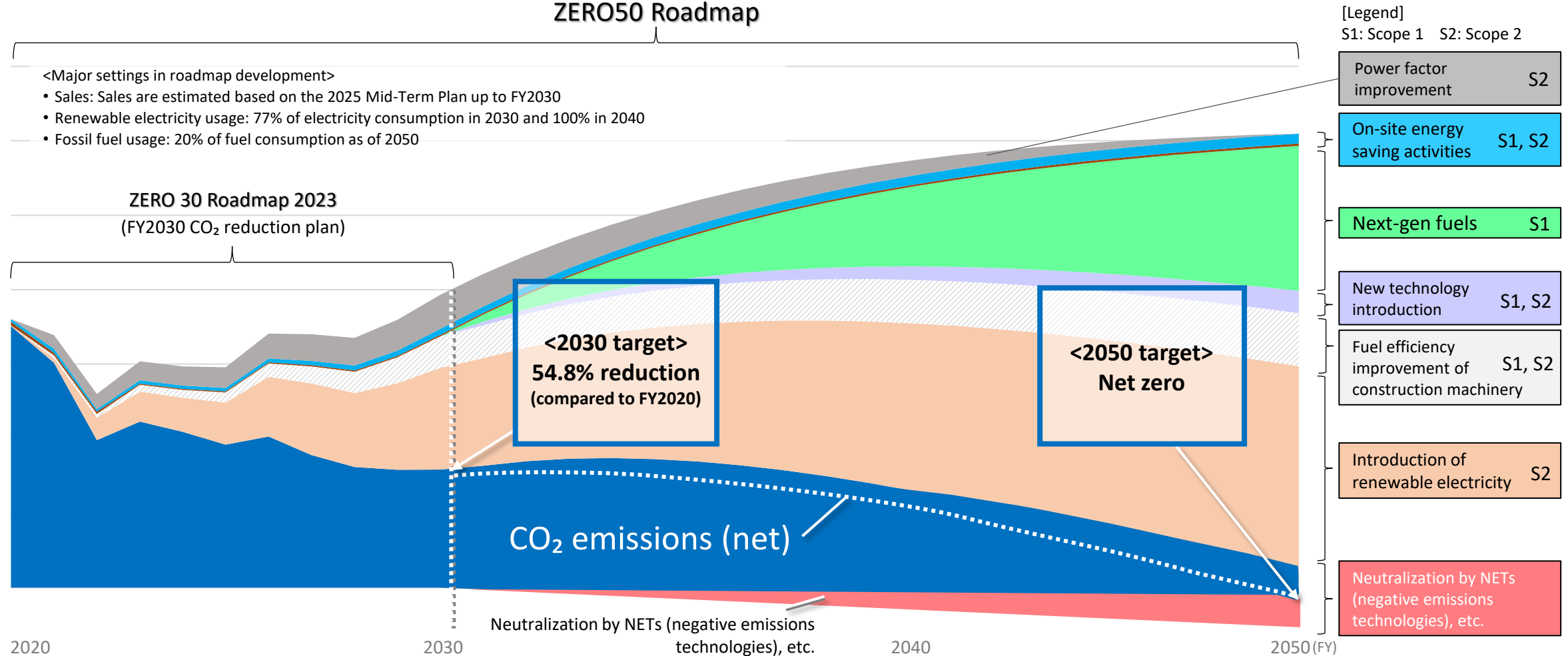
The ZERO50 Roadmap is a plan to achieve net zero in the entire value chain toward a CN society in 2050. In addition to direct CO₂ reduction measures, it also aims to implement related activities to promote reduction, such as enhancing governance and collaborating with stakeholders, and to shift business models toward a CN society.



[ZERO50 Roadmap / Scope 1+2]

A roadmap to achieve net zero for the direct operations (Scope 1 + 2) part in the "ZERO50 Roadmap." We will strive to achieve net-zero CO₂ emissions by utilizing negative emission technologies in addition to standardizing renewable electricity and introducing next-generation fuels and technological innovations (construction machinery and equipment that contribute to decarbonization).

ZERO50 Roadmap



The Nishimatsu Transition Plan for CN Society consists of the "ZERO50 Roadmap" and a "Action Plan" for climate-related risks and opportunities identified as material items (P. 11) as a result of scenario analysis in preparation for the transition. Considering the large profit recovery amount achieved by avoiding or reducing risks, and in order to ensure profits by acquiring opportunities, we set response policies, KPIs and targets, and then implement the PDCA cycle to manage progress in our action plan.

Progress in addressing climate-related risks and opportunities (summary)

→ P19, 20

■ Particularly successful item

• [Risk No. 8] **Business cost increase due to the full-scale introduction of carbon tax**

Scope 1+2 CO₂ emissions reduction in line with ZERO30 Roadmap in FY2023 result :
41k t-CO₂ (FY2022 result: 44.6k t-CO₂) (FY2030 CO₂ emissions target: 31.7k t-CO₂)

■ Delayed items

• [Risk No. 4] **Loss of order opportunities due to delayed technological development of environmentally-friendly concrete**

Delayed development to meet the 2028 implementation targets for carbon negative concrete buildings

• [Opportunity No. 8] **Response to global environmental issues**

FY2023 renewable electricity generation volume result: 0.9k MWh (FY2023 target: 1.7k MWh) (approx. 50% of the target)

(1) Progress of climate-related risks

[Legend (evaluation)] ◎: Progressing faster than planned; ○: Progressing as planned;
△: Progressing behind plan; ×: No progress against plan

					Overall progress check (metrics and targets)				Status of efforts up to FY2023		Status from FY2024 onwards	
No.	Business classification	Material item	Response policy	Relations with Nishimatsu-Vision 2030 and Mid-Term Management Plan 2025	KPI (metric)	Target	FY2023 result	Achievement level	Action	Evaluation	Future action (FY2024 onwards)	
1	Civil engineering business	[Temperature rise] Response to a decrease in skilled workers (consideration of power-saving construction methods)	Establishment and accumulated experience of large-scale precasting technology	Promotion of technological development of road slab replacement	Number of orders received for expressway road slab replacement construction	A total of 5 cases by FY2030	1 case	20%	・Develop large-scale precasting technology ・Establish precast product procurement systems	○→	・Continue actions taken in FY2023	
2	Civil engineering business	[Temperature rise] Response to a decrease in skilled workers (unmanned and automated operation)	Establishment and on-site implementation of unmanned and automated construction technology	Productivity improvement in construction business: Automated tunnel construction and construction RX (robot transformation) Promotion of "smart construction sites" utilizing DX	Number of workers in mountain tunnel and shield construction	Reduce 30% from FY2018 level by FY2027	0%	0%	・Establish remote-control technology for major works in mountain tunnel construction ・Establish elemental technology and AI-assisted technology for shield tunnel construction	○→	・Continue actions taken in FY2023 ・Introduce unmanned and automated technology to construction	
3	Building construction business	[Temperature rise] Response to a decrease in skilled workers (Increase in labor costs, construction robots)	Development and introduction of construction robots, remote control, and manpower-saving apps	Productivity improvement in construction business: Construction RX (robot transformation) Promotion of "smart construction sites" utilizing DX	Reduction in total annual working hours of all workers	Reduce total annual working hours by 66,000 by FY2030	10,900 hours down	17%	・Participate in the RX Consortium to develop and test construction robot technology ・Collaborate with partner companies to develop construction robots ・Develop productivity improvement technology through collaboration with technical research institutes and manufacturers	○→	・Continue actions taken in FY2023	
4	Building construction business	[Decarbonization needs] Technological response related to environmentally-friendly concrete	Promotion of development of environmentally-friendly concrete	Acquisition of trailblazing construction technology: low-carbon material development	(1) Low-carbon concrete (2) Carbon negative concrete	Implement in buildings (1) by FY2026 and (2) by FY2028	0 cases	0%	・(1) Develop technology for implementing low-carbon concrete buildings ・(2) Develop technology for implementing carbon negative concrete buildings	(1)○ (2)△→	・Continue actions taken in FY2023 ・(1) Implement technology-developed (slagrete, volcanic glass powder, geopolymers) low-carbon concrete in buildings ・(2) Implement carbon negative concrete in buildings	
5	Building construction business	[Decarbonization needs] Technological response related to wooden high-rise buildings	Enhancement of design and construction technology for wooden high-rise buildings	Acquisition of trailblazing construction technology: wooden building construction technology	Annual sales of wooden mid- and high-rise buildings	17.2 billion yen as of FY2030	1.35 billion yen	8%	・Acquire fire resistance technology for wood materials ・Develop and practically apply structural design technology for one-way timber frames for wooden low- and mid-rise buildings ・Jointly develop construction methods for practical application of wooden high-rise buildings (11 stories or more)	○→	・Continue actions taken in FY2023 ・Establish and practically apply structural design technology for two-way timber frames for wooden low- and mid-rise buildings ・Extract and address issues in fire resistance construction methods in actual buildings	
6	International business <civil engineering>	[Temperature rise] Response to a decrease in skilled workers (technological response)	Introduction of manpower-saving tunnel construction in overseas construction projects	—	Manpower-saving technology in tunnel construction	Adopt one case by FY2027	0 cases	0%	Consider specific measures for implementation	○→	・Introduce manpower-saving technology in tunnels ・Promote ICT construction	
7	International business <building construction>	[Temperature rise] Response to a decrease in skilled workers (consideration of construction methods)	Adoption of pre-fabrication methods	—	Achievements of buildings using pre-fabrication methods	Construct one case by FY2030	0 cases	0%	・Verify technology and costs for pre-fabrication of factory logistics facilities	○→	・Continue actions taken in FY2023	
8	Company-wide	[Strengthened policies] Response to the full-scale introduction of carbon tax	Reduction of Scope 1+2 CO ₂ emissions in line with ZERO30 Roadmap	ZERO30 Roadmap	Scope 1+2 emissions	Achieve 31.7k t-CO ₂ by FY2030	41k t-CO ₂	76%	・Promote energy conservation in construction ・Introduce renewable electricity in business activities ・Extract technologies, methods, and ideas that contribute to decarbonization at construction sites, and tentatively introduce environmental technology	◎→	・Continue actions taken in FY2023	

(2) Progress of climate-related opportunities

[Legend (evaluation)] ◎: Progressing faster than planned; ○: Progressing as planned;

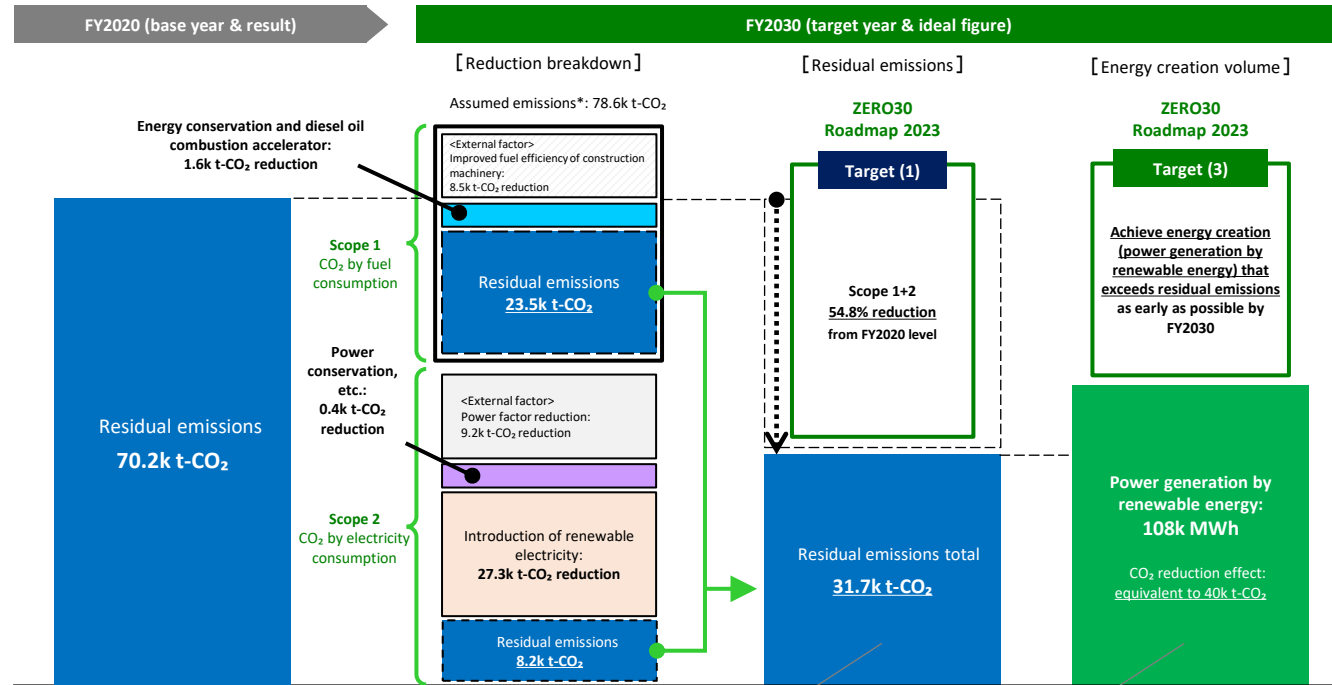
△: Progressing behind plan; ×: No progress against plan

					Overall progress check (metrics and targets)				Status of efforts up to FY2023		Status from FY2024 onwards	
No.	Business classification	Material item	Response policy	relations with Nishimatsu-Vision 2030 and Mid-Term Management Plan 2025	KPI (metric)	Target	FY2023 result	Achievement level	Action	Evaluation	Future action (FY2024 onwards)	
1	Civil engineering business	[Temperature rise] Increased disaster recovery construction	Establishment of a system for rapid response in disaster recovery construction	—	Acceptance of requests for disaster recovery assistance	Achieve 100% by FY2030	100% (2/2 cases)	100%	・Establish a system for rapid response ・Establish a system that contributes to strengthening procurement capabilities for emergency materials, equipment, and labor ・Collect information on unmanned and automated technology	○	・Continue actions taken in FY2023 ・Introduce unmanned and remote technology to actual disaster recovery construction	
2	Civil engineering business	[Decarbonization needs] Increased renewable energy-related construction	Enhancement of order intake for offshore wind power generation construction projects	Participation in offshore wind power generation construction projects	Number of orders received for offshore wind power generation projects	A total of 1 case as of FY2030	0 cases	0%	・Acquire wind power generation construction technology ・Possess SEP vessels (construction barges)	○	・Continue actions taken in FY2023 ・Accumulate construction experience necessary for offshore wind power generation construction	
3	Civil engineering business	[Temperature rise][Strengthened policies] Increased disaster prevention- and mitigation construction	Enhancement of order intake for shield construction and renewal construction (disaster prevention and mitigation related)	—	Disaster prevention and mitigation related construction completed	More than 14 billion yen/year as of FY2030	13 billion yen	93%	・Continuously receive orders for shield construction and renewal-related construction ・Strengthen relations with shield construction companies (build cooperative relations)	○	・Continue actions taken in FY2023	
4	Building construction business	[Decarbonization needs] Increased needs for ZEB construction	Promotion of ZEB in new construction and renovation projects	High added-value buildings: ZEB, ZEH	Increased sales due to ZEB	2.24 billion yen/year as of FY2030	160 million yen	7%	・Extract measures to improve efficient performance in design and construction projects ・Understand air-conditioning operating efficiency in the Company's development properties ・Begin verification of optimal operation and management methods in the Company's energy-efficient facilities ・Design and construct Nearly ZEB buildings	○	・Continue actions taken in FY2023 ・Design and construct verification buildings for Nearly ZEB (75% reduction without energy creation) ・Build achievements of ZEB in renovation projects	
5	International business <civil engineering>	[Temperature rise] Increased disaster countermeasure work	Collection of sales and technical information and technological development related to flood prevention construction	—	Number of flood prevention construction projects	One by FY2027	0 cases	0%	・Collect sales and technical information related to flood prevention construction	○	・Continue actions taken in FY2023	
6	International business <building construction>	[Decarbonization needs] Increased needs for energy-efficient buildings	Promotion of ZEB in new construction and renovation projects	—	Nearly ZEB design and construction results	One by FY2030	0 cases	0%	・Market research on energy-efficient building needs	○	・Continue actions taken in FY2023 ・Consider ZEB Ready design	
7	Asset Value-Added business	[Decarbonization needs] Increased needs for energy-efficient rental buildings	Implementation of ZEB and energy-efficient measures in rental buildings owned	・Owned properties: Promotion of energy conservation (equipment upgrades), promotion of the shift to renewable energy ・New properties: Promotion of "ZEB Ready standard specifications"	Percentage of ZEB and energy-efficient rental buildings owned	More than 60% of owned rental buildings by FY2030	6% (3/50 cases)	6%	・Determine the specifications of rental buildings owned ・Promote ZEB and energy conservation in newly built properties ・Promote energy conservation or asset replacement in existing properties owned	○	・Continue actions taken in FY2023	
8	Regional Environmental Solutions business	[Decarbonization needs][Strengthened policies] Response to global environmental issues	Promotion of energy creation and related businesses	・PPA business, power generation business (small-scale hydropower, geothermal, wood biomass, etc.) ・Develop comprehensive partnership agreement business with multiple local governments	Electricity volume generated by energy creation business	108k MWh per year by FY2030 *Target for FY2023: 1.7k MWh	0.9k MWh	0.86%	FY2023 business launch project: ・One solar power generation (PPA) Preparation for scheduled FY2024 business launch project: ・One biomass power generation Preparation for scheduled FY2025 business launch project: ・One methane fermentation biogas power generation	△	・Stable operation of new solar power plants and acquisition of existing mega solar power plants ・Business development in collaboration with local communities and companies, focusing on areas with high potentials for geothermal power generation ・Business development in small-scale hydropower generation ・Business development utilizing unused domestic materials in biomass power generation ・Business development in collaboration with companies with new technologies in methane fermentation biogas power generation ・Business development in collaboration with partner companies in floating offshore wind power generation ・Development of a power storage station (grid storage batteries) business as a renewable energy-related business	

ZERO30 Roadmap 2023

An action plan to reduce CO₂ emissions to create a decarbonized society by 2030, aiming to realize the “ZERO50 Roadmap.” It consists of an ambitious Scope 1 + 2 reduction plan (Target (1)) that exceeds the SBT 1.5°C certification standard*1, a Scope 3 Category 11 reduction plan (Target (2)), and an energy creation plan through renewable energy power generation projects (Target (3)).

■ [Target (1)] Scope 1+2 and [Target (3)] Energy creation



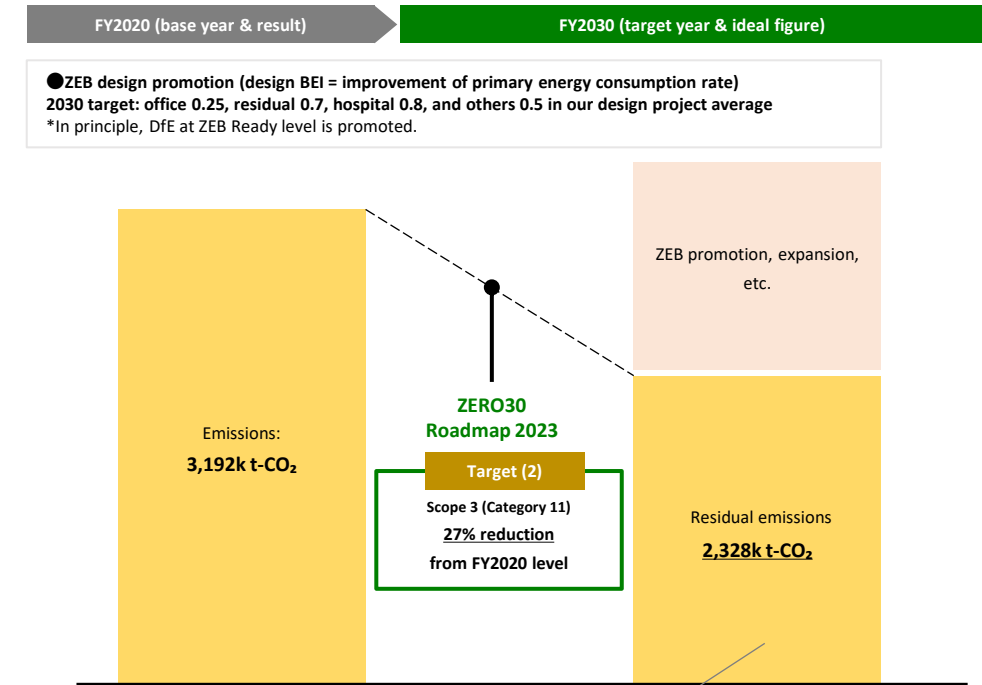
For Scope 1 + 2, we have set a target of reducing CO₂ emissions by 54.8% compared to FY2020 levels*2, based on proactive energy-saving activities and the shift to renewable energy sources for electricity.

*1 SBT: Science Based Targets set to reduce greenhouse gas emissions aiming to achieve the goals of the Paris Agreement. SBTi, an international initiative, promotes activities to request companies to set SBTs and certifies them.

With regard to energy creation, we will provide society with green energy that exceeds our Scope 1 + 2 residual emissions through solar power generation, small-scale hydropower generation, geothermal power generation, wood biomass power generation, biogas power generation, and other means.

*2: P25 explains metrics for Scope 1 and 2 reduction measures together with targets and results in each fiscal year.

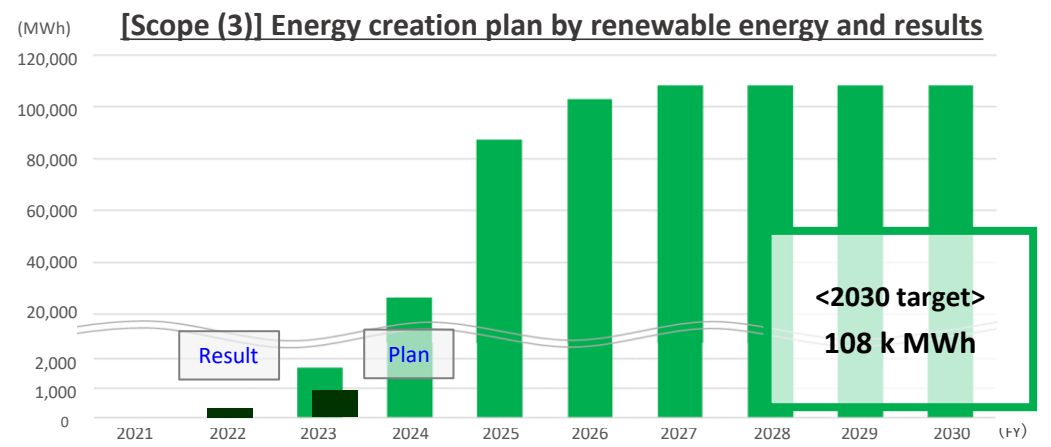
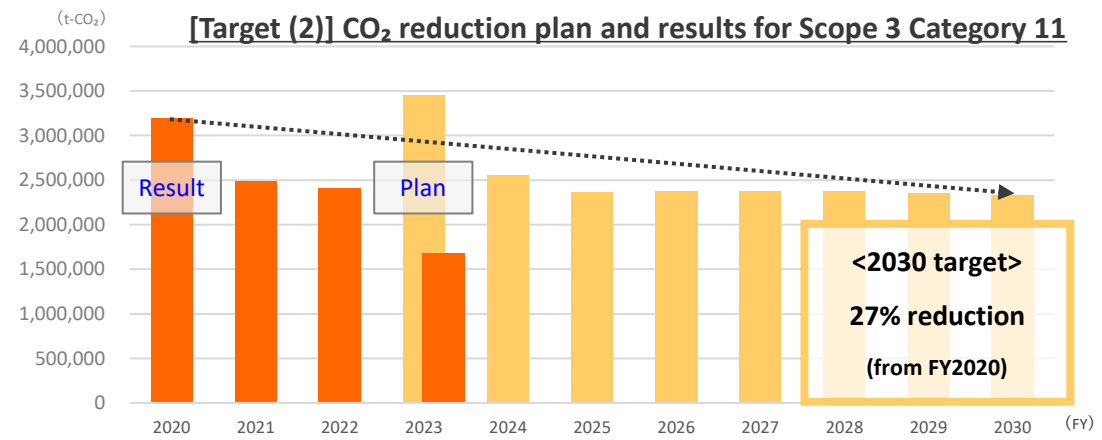
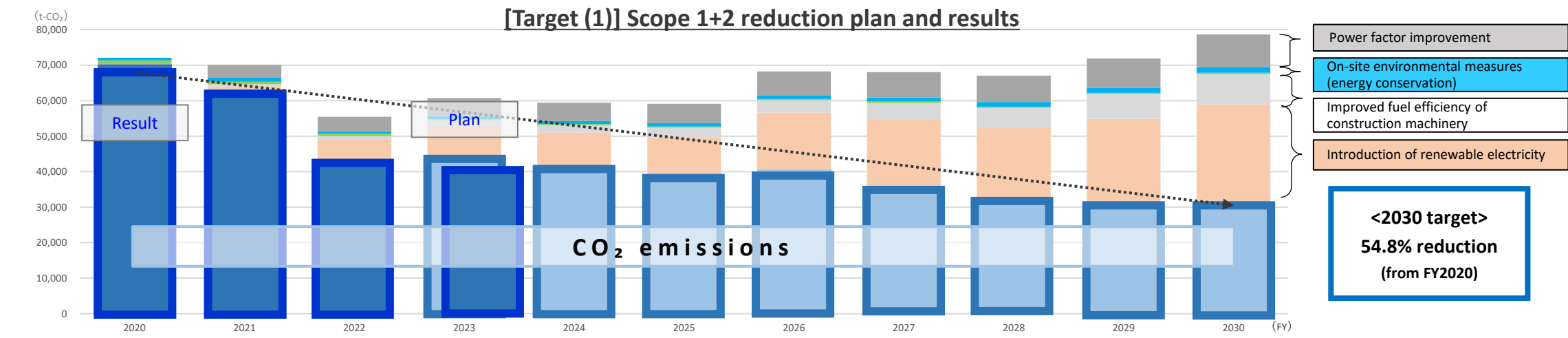
■ [Target (2)] Scope 3 Category 11



For Scope 3, we target Category 11, "CO₂ emissions associated with energy use during the operation of completed buildings," which accounts for more than 75% of the total of Scope 1, 2, and 3 emissions, and intend to reduce this by 27% compared to FY2020 by promoting ZEB design in design-build projects.

ZERO30 Roadmap 2023

The ZERO30 Roadmap 2023 is a CO₂ emissions reduction plan that is positioned as the 2030 milestone in the "ZERO50 Roadmap," which is part of the "Nishimatsu Transition Plan for CN Society." By FY2030, we will reduce Scope 1+2 by 54.8% (by introducing renewable electricity and environmentally-friendly fuels, etc.) and Scope 3 Category 11 by 27% (by promoting ZEB design). At the same time, as a renewable energy power generation business, we will generate 108,000 MWh of renewable energy (equivalent to a reduction of 40,000 t-CO₂), which will exceed our residual Scope 1 and 2 emissions in FY2030 (32,000 t-CO₂).





Relevant Data and Results

Scopes 1, 2 and 3 emissions results

●Scopes 1 and 2 *

Classification	Calculation range	FY2022	FY2023	Ratio
Scope 1	<ul style="list-style-type: none"> Greenhouse gas (CO₂) emissions from combustion of fuels used in business activities. The scope of business covers our entire group. 	20.3	26.5	64.7%
Scope 2	< Location-based emissions > <ul style="list-style-type: none"> Indirect greenhouse gas (CO₂) emissions derived from electricity used in business activities. The scope of business covers our entire group. 	31.1	23.4	—
	< Market-based emissions > <ul style="list-style-type: none"> Indirect greenhouse gas (CO₂) emissions derived from electricity used in business activities. The scope of business covers our entire group. 	22.7	14.5	35.3%
Total(Scope1 and Scope2 Market-based emissions)		43.0	41.0	100.0%

Unit: kt-CO₂

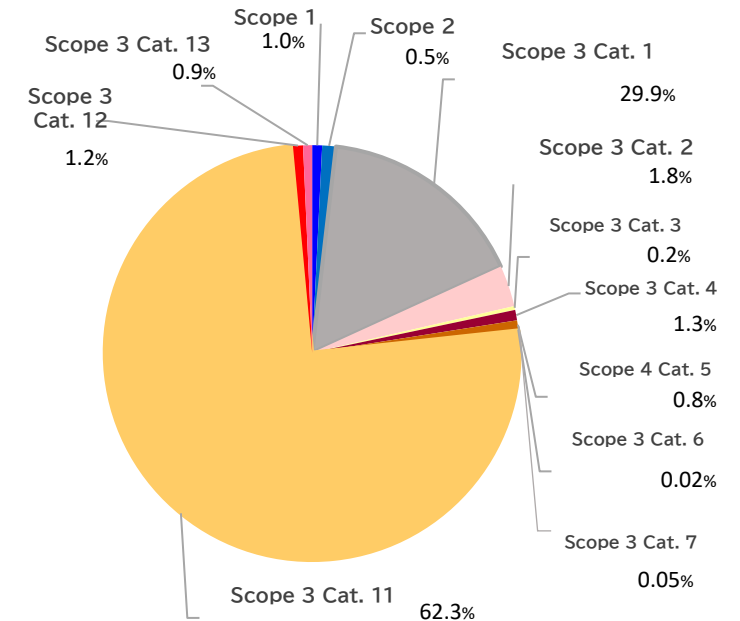
*Scope 1 and 2 for domestic construction projects are estimates based on sample sites (sample rate: approximately 70% on the value of construction put in place).

●Scope 3*

Category	Calculation range	FY2022	FY2023	Ratio
1 Purchased goods and services	<ul style="list-style-type: none"> Of products purchased by the Group, emissions of major materials (rebar, concrete, cement, H-beams, steel pipe piles, steel sheet piles, steel frames, construction metal products, and cement products), whose purchased volume is grasped, from the resource extraction stage to the manufacturing stage. 	726.4	802.8	30.3%
2 Capital goods	<ul style="list-style-type: none"> Emissions from construction, manufacturing, and transportation of capital goods purchased or acquired by the Group (estimated from total capital investment in FY2021) 	90.2	49.1	1.9%
3 Fuel- and energy-related activities not included in Scopes 1 and 2	<ul style="list-style-type: none"> Upstream emissions in the manufacturing process of fuels and electricity purchased by the Group 	6.8	5.9	0.2%
4 Transportation and distribution (upstream)	<ul style="list-style-type: none"> Emissions from logistics (transportation from the supplier to the site) of major materials purchased by the Group 	24.6	33.9	1.3%
5 Waste generated in operations	<ul style="list-style-type: none"> Of waste generated in our business activities (excluding onerous one), emissions related to "disposal" and "treatment" outside the Company, and emissions related to transportation of waste 	18.4	22.0	0.8%
6 Business travel	<ul style="list-style-type: none"> Emissions from fuel and electricity consumption of transportation used by Group employees on business trips, and emissions from fuel and electricity consumption during overnight stays (applicable only to domestic business trips). 	0.4	0.4	0.02%
7 Employee commuting	<ul style="list-style-type: none"> Emissions from fuel and electricity consumption by means of transportation used by Group employees when commuting (not including employees of cooperating companies commuting to our branch offices) 	1.2	1.5	0.06%
11 Use of sold products	<ul style="list-style-type: none"> Of emissions from the use of buildings constructed by the Group, emissions from the consumption of energy from building equipment (estimated based on The Building Energy Consumption Survey published by The Building-Energy Manager's Association of Japan) (obtained by multiplying the annual CO₂ emissions calculated for each building type by the period of building service) 	2,406.0	1,673.2	63.2%
12 End-of-life treatment of sold products	<ul style="list-style-type: none"> Emissions related to disposal and treatment of buildings constructed by the Group (calculated on an assumption that the physical quantity of main materials purchased by the Company is the physical quantity of "sold products" and that these will be disposed of or treated in the future) 	30.4	32.1	1.2%
13 Leased assets (downstream)	<ul style="list-style-type: none"> Emissions from the operation of leased assets owned by the Group as a lessor and leased to others (as of March 31, 2022) 	22.3	25.0	0.9%
Total		3,326.7	2,654.8	100.0%

Unit: kt-CO₂

Ratio of Scopes 1, 2 and 3 in FY2023



*Categories 8, 9, 10, 14 and 15 do not apply to our business activities.

Scopes 1 & 2 results and targets: Main reduction measures and power generation by energy creation

Main measure		FY2022 result	FY2023 result	FY2024 target	FY2030 target
Introduction of renewable electricity	CO ₂ emissions reduction by renewable energy (Group-wide)	▲7.7kt-CO ₂	▲10.9kt-CO ₂	▲11.4kt-CO ₂	▲27,300t-CO ₂
	Renewable electricity introduction rate (Group-wide)	24%	47%	52%	77%
	Renewable electricity introduction rate (domestic civil engineering business)	32%	52%	52%	80%
	Renewable electricity introduction rate (domestic office and other non-construction activities)	68%	94%	91%	100%
	Renewable electricity introduction rate (international business)	0%	0%	2%	60%
	Renewable electricity introduction rate (asset value-added business)	6%	15%	55%	100%
	Renewable electricity introduction rate (Group companies)	5%	22%	18%	100%
On-site environmental measures (energy conservation)	CO ₂ emissions reduction by energy conservation	▲1.5kt-CO ₂	▲1.2kt-CO ₂	▲1.2kt-CO ₂	▲2.0kt-CO ₂
	Introduction rate of diesel oil combustion accelerators	49%	52%	70%	100%
	Number of sites where N-TEMS is installed *Nishimatsu Tunnel Energy Management System	7 sites	3 sites	4 sites	5 sites
Amount of energy created (renewable energy generation)		Approx. 0.3k MWh	Approx. 0.9 k MWh	Approx. 14k MWh	Approx. 108k MWh

Climate-related environmental data

● Domestic Group

Item		Unit	FY2022	FY2023
Water	Water	1,000m3	723	468
Energy	Electricity	MWh	57,840	48,430
	Fuel	kl	7,155	9,407
Industrial waste	emissions	kt	452	697
	Specially controlled industrial waste	kt	0.07	0.4

<Scope of calculation>

Scope of domestic group: Nishimatsu Construction (civil engineering/building construction activities, office and other non-construction activities, development and real estate business) and consolidated subsidiaries (Nishimatsu Jisho, Sci Tech Farm)

*CO₂ emissions and water usage during construction are based on sampling surveys.

*CO₂ emissions are calculated based on the CO₂ emission factor specified by the Global Warming Countermeasures Act.

● CO₂ emissions intensity of domestic construction business

	Subject	Unit	FY2022	FY2023
CO ₂ emissions intensity	Civil engineering	t-CO ₂ /billion yen	2.10	2.34
	Building construction	t-CO ₂ /billion yen	0.50	0.41
	All	t-CO ₂ /billion yen	1.11	1.01



Additional Information

Participation in RE100

We joined RE100* in September 2021, committing to using renewable energy for 60% of all electricity consumption by 2030 and 100% by 2050. The ZERO30 Roadmap 2023 plans to convert 77% of all electricity consumption to renewable energy by FY2030.

[RE100 Members] <https://www.nishimatsu.co.jp/news/2021/re100.html>

RE100: A global initiative that aims for companies to cover 100% of the electricity used in their businesses with renewable energy.

	Base year	Target and result for renewable electricity consumption rate in business activity				
		FY2021 result	FY2022 result	FY2023 result	FY2030 target	FY2050 target
RE100	2020	—	—	—	60%	100%
Our target and result	2020	3%	24%	47%	77%	100%



Acquisition of SBT Certification

In June 2022, we acquired SBTi certification (WB2°C) for our group-wide GHG reduction targets. We then reviewed our CO₂ emissions reduction plan (formulation of the ZERO30 Roadmap), and based on this plan, we will have our certification renewed at the SBT 1.5°C level by the end of FY2024.

[Acquisition of SBT certification SBT] <https://www.nishimatsu.co.jp/news/2022/sbt.html>



We actively participate in various domestic initiatives and industry associations, making proposals that help solve problems at meetings, expressing opinions on policy recommendations, and offering our support so as to contribute to building a decarbonized society.

Participation in Japan Climate Initiative (JCI)

In 2018, we joined the Japan Climate Initiative (JCI)* and support the initiative's recommendations to policymakers in order to promote decarbonization in Japan.

In December 2023, we endorsed a recommendation to implement carbon pricing to simultaneously achieve the 2030 GHG emissions reduction target and strengthen international competitiveness.

*Japan Climate Initiative (JCI): A network established in 2018 to strengthen information dissemination and opinion exchanges among companies, local governments and NGOs that actively implement climate actions.



Joining Japan Climate Leaders' Partnership (JCLP)

Nishimatsu joined the Japan Climate Leaders' Partnership (JCLP)* in June 2021 and has been participating in activities to promote the spread of renewable electricity.

We actively engage in corporate discussions at events like the RE100 Strategy Conference, where we contribute to policy proposals by identifying key issues and exploring solutions related to renewable electricity procurement.

[Joined Japan Climate Leaders' Partnership (JCLP)] <https://www.nishimatsu.co.jp/news/2021/jclp.html>

* Japan Climate Leaders' Partnership (JCLP): A distinctive Japanese corporate group established in 2009 based on the recognition that, in order to realize a decarbonized society, the industry sector must have a sound sense of urgency and begin to take proactive action. As of March 2024, it boasts 249 companies, including prominent players from various industries in Japan.



Decarbonization Promotion Activities of the Japan Federation of Construction Contractors

As a member of the Japan Federation of Construction Contractors, and in the environmental field, we take part in the Environmental Committee and its various subcommittees, including the Environmental Management Subcommittee and the Global Warming Subcommittee. Our focus is on implementing specific measures to reduce CO₂ and working to elevate the federation's targets.

In FY2023, the Global Warming Subcommittee extensively discussed reviewing the calculation and aggregation methods for CO₂ emissions in the business activities of member companies of the Japan Federation of Construction Contractors.

We have been recognized by the following ministry and agency as having good practices of effective communication with investors and other stakeholders through disclosure such as "Nishimatsu Climate Information 2023."

Financial Services Agency "Collection of Good Practices on Disclosure of Narrative Information 2023 (Released in December 2023)"

Nishimatsu was featured by the Financial Services Agency in its "2023 Collection of Good Practices on Disclosure of Narrative Information (Examples of Disclosure of Sustainability-Related Concepts and Initiatives in Securities Reports)" published in December 2023.

This compilation highlights effective practices related to our disclosure in alignment with TCFD recommendations, and covers topics such as report line in governance, quantitative scenario analysis and visual representations using waterfall charts within our strategy, our roadmap toward carbon neutrality in 2050, CO₂ emissions results by scope and category in terms of metrics and targets, and so on.

[Collection of Good Practices on Disclosure of Narrative Information 2023] <https://www.fsa.go.jp/news/r5/singi/20231227/05.pdf>

Ministry of Land, Infrastructure, Transport and Tourism "TCFD Guidance for the Real Estate Sector (Published in March 2024)"

Our advanced practice was introduced in the revised "TCFD Guidance for the Real Estate Sector" released in March 2024 by Real Estate Market Division, Real Estate and Construction Economy Bureau, Ministry of Land, Infrastructure, Transport and Tourism.

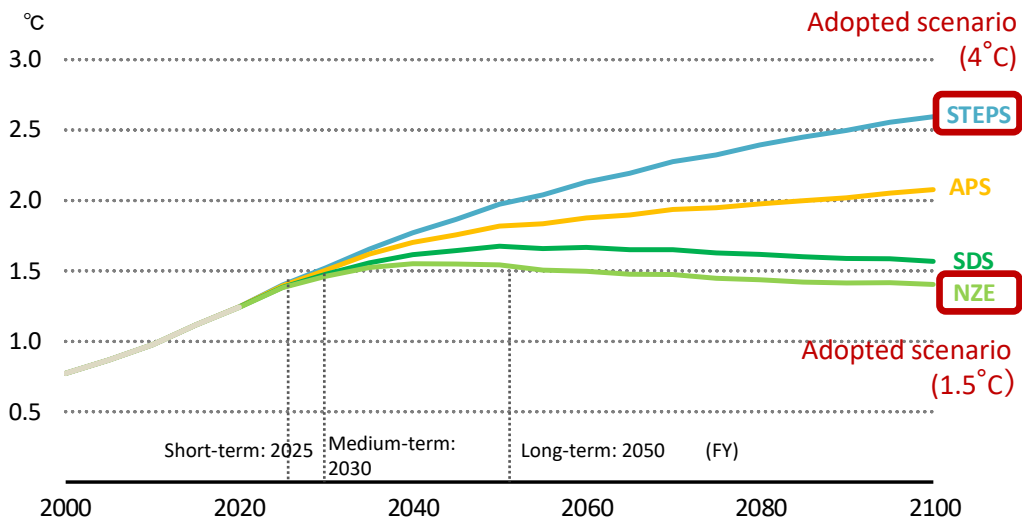
The guidance outlines key points of our good practices related to disclosure in alignment with TCFD recommendations, including specific explanations of matters that may have a financial impact over time and by scope within our strategy (scenario analysis), and in metrics and targets, metrics used to measure climate-related risks and opportunities, trends in GHG emissions targets and results, and considerations made on these results, etc.

[TCFD Guidance for the Real Estate Sector (main text)] <https://www.mlit.go.jp/totikensangyo/content/001734387.pdf>

References

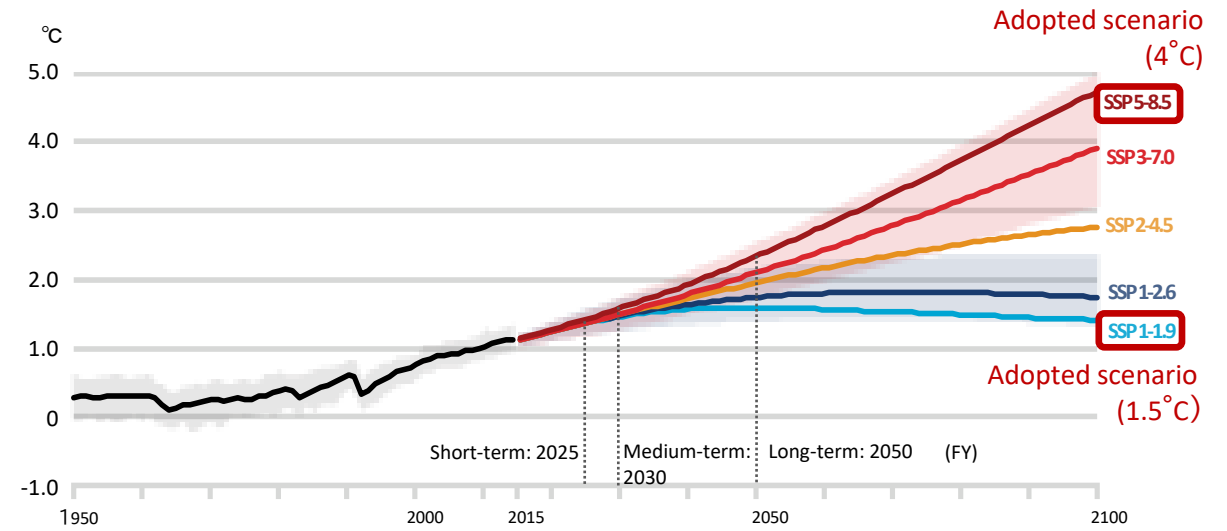
(Reference) Change in average temperature in each scenario

■ Change in global average temperature by transition scenario according to IEA



Source: International Energy Agency "World Energy Outlook 2021"

■ Change in global average temperature by physical scenario according to IPCC* Sixth Assessment Report



Source: IPCC Sixth Assessment Report Figure SPM.8 (a) Global surface temperature change relative to 1850–1900

*IPCC: Intergovernmental Panel on Climate Change (United Nations body), founded in 1988 to provide comprehensive assessments from the scientific, technical and socio-economic standpoints on human-induced climate change, impacts, and adaptation and mitigation options. The assessment reports and other information provided by the IPCC, including temperature rise scenarios, are widely used in scenario analysis in the TCFD.

(Reference) Key parameters in each scenario

Parameter	Source
Carbon price (yen/t-CO ₂)	IEA “Net Zero by 2050 A Roadmap for the Global Energy Sector”
Labor reduction rate due to heat stress (%)	ILO “Working on a warmer planet 2019”
Ratio of extreme high temperature occurrence associated with temperature change (%)	IPCC “Sixth Assessment Report”
Frequency of heavy rain events on land (occurring once every 10 years)	IPCC “Sixth Assessment Report”
Renewable energy introduction trends and 2030 introduction targets	Agency for Natural Resources and Energy "Future Renewable Energy Policy" (April 2022)
Market size for clean energy use (yen)	Ministry of the Environment “Summary of FY2020 Report on the Market Size and Employment of the Environmental Industry”
Purchase rate of environmentally-friendly homes (%)	Dentsu "Ethical Consumption Awareness Survey 2022" (June 2022)
ZEB floor area extension rate (%)	IEA “ETP (Energy Technology Perspectives) 2017”
Flood occurrence rate (%)	WWF “Water Risk Filter”
Renewable electricity generation volume (GWh)	IEA “WEO (World Energy Outlook) 2022”