

Mitigating and adapting to climate change

Response to the Task Force on Climate-related Financial Disclosures (TCFD)



Supporting the TCFD Recommendations and enhancing disclosure

The impact of climate change is becoming more severe every year, and the frequent occurrence of extreme weather, meteorological disasters, and other events, for which climate change is thought to be a cause, threatens the safety and security of homes and living, which form the foundation for the value that the Daiwa House Group offers. Meanwhile, since the adoption of the Paris Agreement, nations and governments around the world have taken a sharp turn toward “decarbonization,” and expectations of the role that the private sector should play are changing significantly.

Nevertheless, because the changes in the external environment accompanying climate change are highly uncertain, it is important to hypothesize multiple scenarios and respond to the risks appropriately while recognizing the business opportunities at the same time.

Therefore, in addition to utilizing the “Governance,” “Strategy,” “Risk Management,” and “Metrics and Targets” framework recommended for disclosures by TCFD as a tool for verifying the rationality of our initiatives on climate change, the Daiwa House Group intends to actively disclose information in line with the TCFD recommendations, leading to constructive dialogue with investors and others.

In keeping with this idea, the Daiwa House Group announced its support for the TCFD recommendations in September 2018 and joined the TCFD Consortium which was founded in May 2019.

In fiscal 2022, we held small ESG meetings for institutional investors in December, which we launched in fiscal 2018, and also engaged in individual dialogues with 8 institutional investors. Opinions we received at these interviews are fed back to relevant division and personnel and are taken into account in improving our reports.

P030 Eco Communication

Governance

For governance, please refer to the Environmental management section.

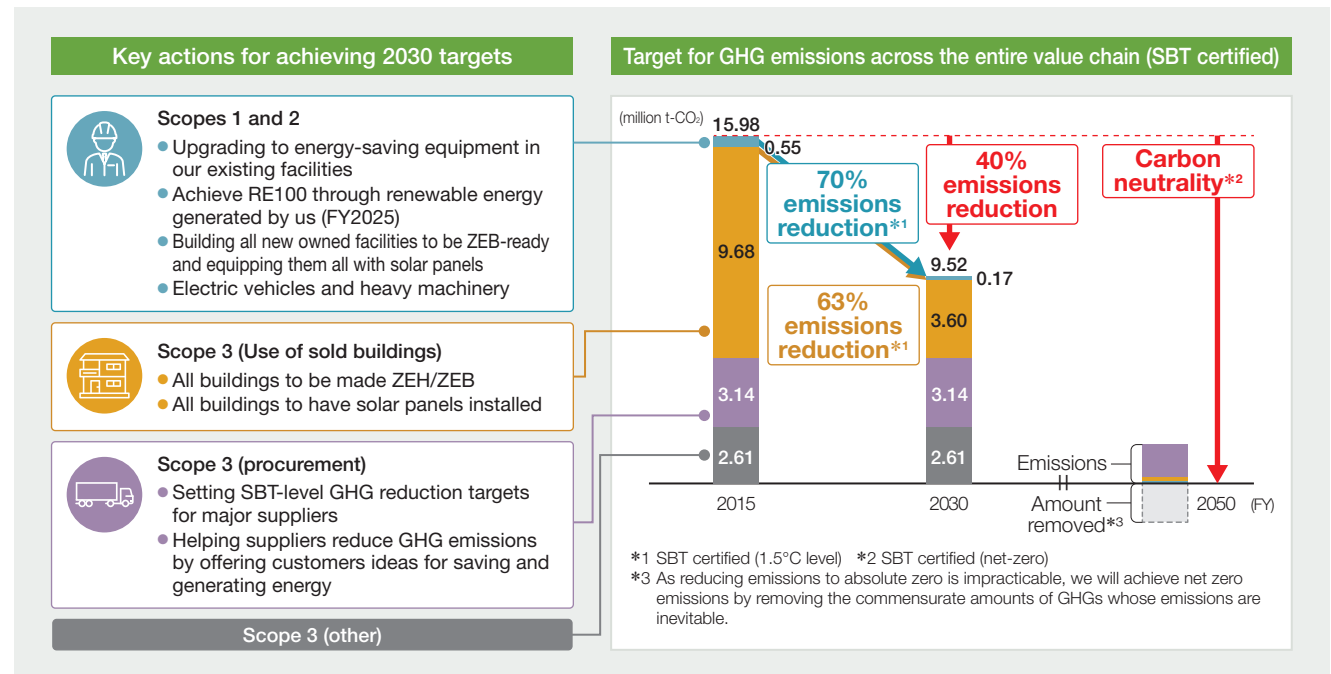
P023 Environmental management

Transition plan to achieve carbon neutrality

The Daiwa House Group has positioned mitigating and adapting to climate change as one of its key management issues and has continued efforts toward achieving carbon neutrality by 2050 as declared in the Long-Term Environmental Vision. Under the theme of “Realize carbon neutrality by making all buildings carbon-free” (hereinafter, “carbon neutral strategy”) under the 7th Medium-Term Management Plan that started in fiscal 2022, we set as a milestone a 40% reduction in GHG emissions by 2030 compared to FY2015 throughout our value chain (scope 1, 2 and 3). Toward this target, we accelerate our initiatives in all aspects of the entire business.

In particular, GHG emissions in our business activities (scope 1 and 2), in which we are directly involved, must be reduced by 70% from the FY2015 level by 2030. This should be attained by achieving RE100 (renewable energy utilization rate of 100%) at the earliest possible time with renewable energy generated in-house. Among the three scopes, the largest portion of GHG emissions is attributable to the use of housing sold (scope 3 category 11). Aiming to reduce emissions from this area by 63% compared to FY2015 by 2030, we decided to make all new buildings into ZEH and ZEB in all businesses as a rule, and install solar power generation systems on all buildings.

Migration plan for reducing GHG emissions (by scope) on the road to carbon neutrality



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Strategy

The risks and opportunities associated with climate change can be considered as those caused by “transitions,” such as the strengthening of regulations, advances in technology, and changes in the market that will occur with the move toward a decarbonized economy, and those caused by “physical change,” such as acute extreme weather and chronic temperature increases that will result from global warming. In addition, the impact could manifest not only in the short term, but also over the medium-to-long term.

Therefore, we have classified the factors involved in the various changes in the external environment associated with climate change into “transitions” and “physical changes,” estimated the period that will be impacted, and assessed the financial impact at three levels—large, medium, and small—to identify the significant risks and opportunities.

5 steps for strategy development

STEP 1 Assess the priorities of climate change risks

- List risk items
- Describe the impacts on business
- Assess the priority of risks

STEP 2 Identify scenarios

STEP 3 Evaluate the impacts on business

- Identify financial items that may be affected by risks and opportunities
- Consider calculation formulas and estimate financial impact

STEP 4 Consider countermeasures and reflect them in policy and strategy

- Grasp our response to risks and opportunities
- Consider measures to respond to risks and to seize opportunities
- Reflect them in policy and strategy

STEP 5 Disclose information

Main Risks and Opportunities Related to Climate Change Affected period: Short: less than 1 year; Medium: over 1 year but less than 5 years; Long: over 5 years
Degree of financial impact: Small: less than ¥10 billion; Medium: over ¥10 billion but less than ¥100 billion; Large: over ¥100 billion

Type	Details		Period of impact	Level of financial impact
Risks	Transitions	<p>Cost price increase due to change in specifications owing to tougher regulations of the Building Energy Efficiency Act Reducing GHG emissions in the household and business sectors is an urgent issue in Japan. The Building Energy Efficiency Act was enacted in 2016, requiring compliance with energy conservation standards from 2017 for non-residential buildings with a floor area of 2,000 m² or more. This was expanded to buildings with a floor area of 300 m² or more from 2021. In 2025, it will become mandatory for all newly constructed houses and buildings to comply with energy conservation standards. If the energy conservation standards are also raised higher, they may lead to higher cost prices for the houses and buildings we provide.</p>	Short term	Medium
		<p>Increase in operational costs due to expansion of carbon tax and emissions trading system As various countries step up their efforts for decarbonization to achieve the Paris Agreement, Japan has announced a policy of achieving carbon neutrality by 2050, giving rise to the possibility of new regulations and schemes such as a carbon tax and emissions trading system being adopted in Japan. Already a green tax was adopted in Japan, but internationally the tax rate is said to be low. Therefore, there is a high likelihood of it being raised in the future as carbon tax. If the carbon tax rate increases substantially or the emissions trading system expands, we may face higher operational costs.</p>	Medium term	Small
	Reputation	<p>Accrual of costs to decarbonize a coal-fired power plant As various countries step up their efforts for decarbonization to achieve the Paris Agreement, Japan has announced a policy of achieving carbon neutrality by 2050, giving rise to the possibility of new regulations and schemes such as a carbon tax and emissions trading system being adopted in Japan. Already a green tax was adopted in Japan, but internationally the tax rate is said to be low. Therefore, there is a high likelihood of it being raised in the future as carbon tax. If the carbon tax rate increases substantially or the emissions trading system expands, we may face higher operational costs.</p>	Medium term	Medium
Risks	Physical changes	<p>Increase in risk of heat stroke at construction sites due to rise in summer maximum temperatures In Japan, it has been pointed out that the number of heat stroke patients increases significantly when the wet bulb globe temperature (WBGT) is over 28°C (extreme caution), and it is possible that the risk of heat stroke for workers at the construction sites of the Group, which focuses on the Japan market, will increase further in the future. Therefore, should summer maximum temperatures rise, it is possible that the risk of heat stroke will increase for workers at construction sites where outdoor work is unavoidable, which could lead to longer construction periods and lower productivity for onsite work.</p>	Short term	Small
		<p>Damage to our facilities due to meteorological disasters and increase in insurance premiums When meteorological disasters like storms and floods occur as climate change becomes increasingly severe, there is a high possibility that various company facilities, including offices, factories, and commercial buildings owned by the Group, will be damaged. Much of this damage can be covered by non-life insurance, however, going forward, if the frequency and intensity of meteorological disasters increase, it could lead to an increase in indirect costs associated with higher insurance premiums or decreased sales due to suspension of service businesses.</p>	Short term	Small
	Acute	<p>Impact of material procurement difficulty and construction delay in supply chain due to meteorological disasters Should the manufacturing sites of suppliers be damaged by meteorological disasters such as localized heavy rain, heavy snow, and typhoons due to extreme weather, and their operations suspended and transportation routes impacted by events such as road closures, it could result in hindrances in material procurement and construction periods.</p>	Short term	Small
Opportunities	Transitions	<p>Increase in demand for houses and building with low GHG emissions The core businesses of the Group are contracting and subdivision of houses and buildings in Japan, which comprise the majority of its consolidated net sales. The Japanese government has indicated a policy target to achieve net-zero energy for new houses (ZEHs) and buildings (ZEBs) by 2030, and should incentives to support achievement of this target be continued and expanded, it is possible that demand for ZEHs and ZEBs, which have high unit prices per building, will increase.</p>	Short term	Medium
		<p>Expansion of environmental energy business due to rising demand for renewable energy Japan's Sixth Strategic Energy Plan, announced in October 2021 is aimed at achieving the targets under the Paris Agreement. The plan indicates that the rate of renewable energy will be raised to 36 – 38% of power sources in the target energy mix for 2030, and various policy packages are being implemented to expand the renewable energy market. Over the past few years, the number of organizations participating in RE100 has increased both in and outside Japan, aiming to achieve 100% renewable energy utilization rate, and it is possible that demand for renewable energy will rise and the environmental energy business involved in the development and supply of these will expand going forward.</p>	Short term	Medium
	Physical changes	<p>Rising demand for houses and buildings equipped for meteorological disasters The IPCC's Sixth Assessment Report pointed out the possibility of an increase in the intensity of tropical cyclones, such as typhoons, as global warming progresses. Storms and heavy rain also cause significant damage in Japan, and it takes a long time for life to return to normal afterwards. Therefore, it is possible that demand will rise for comfortable housing free of power outage and other interruptions to daily life even in case of a meteorological disaster, for buildings with energy self-sufficiency that ensures business continuity, and for communities that are resilient.</p>	Medium term	Medium

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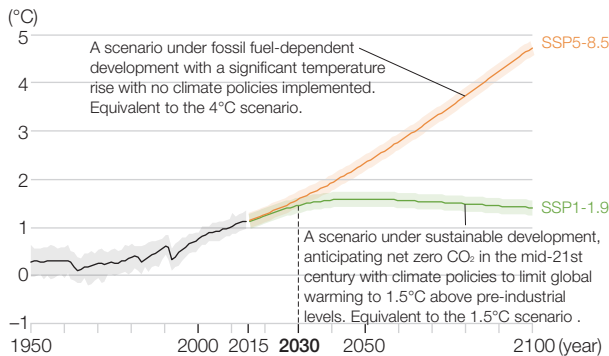
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Result of scenario analysis

In order to formulate a business strategy that can adapt flexibly to future changes in the external environment based on identified risks and opportunities, the Daiwa House Group evaluates the impact on business using several scenarios. In conducting the scenario analysis, we referred to the 1.5°C scenario as the scenario for “transitions,” and to the 4°C scenario as the scenario for extreme “physical change” to verify the rationality of our business strategies. In the recently conducted simplified scenario analysis, demand for the net-zero energy houses and buildings provided by our Group as well as its environmental energy business are expected to expand under any scenario as of 2030, and we confirmed that the revenue growth is likely to exceed any negative financial impact, reaffirming the rationality of our response to risk and the importance of recognizing business opportunities more proactively. The scope of the simple analysis was limited to the significant risks and opportunities for the single-family housing, rental housing business and condominium businesses, and the environmental energy business, which are the Group’s core businesses. Going forward, we will strive to further expand the businesses included in the scope of analysis as well as to increase the comprehensiveness of the risks and opportunities and refine the scenario analysis.

Changes in global average temperature



Source: IPCC AR6 WG I SPM Fig. SPM.8(a)

1.5°C scenario

A scenario under sustainable development to limit global warming to 1.5°C above pre-industrial levels.

Reason for selection	The scenario is aligned with Net Zero by 2050 (1.5°C goal) declared by Japan, in which we mainly operate, and involves relatively high transition risks.
Result of analysis	An increase in operational costs due to strengthening of regulations is expected, which can be covered by revenue growth due to increased sales of ZEHs, ZEH-Ms, ZEBs, and the environmental energy business.
Reflection in policies and strategies	With “Realize carbon neutrality by making all buildings carbon-free” positioned as one the focal themes under the 7th Medium-Term Management Plan, we have decided on policies of making all new buildings into ZEH and ZEB as a rule, and installing solar power generations systems on all buildings. We monitor progress using the rates of ZEH, ZEH-M and ZEB as key management metrics and reflect the results in our business strategies. □ P021 <u>Environmental Action Plan (Endless Green Program 2026)</u> P136 <u>Results and self-assessment of the Environmental Action Plan (Endless Green Program 2026)</u>

Main approach

We provide sales and design staff with education and seminars on ZEH and ZEB to improve their knowledge and marketing capabilities. To customers, we developed tools to convey the advantages and costs of environmentally conscious buildings in an easy-to-understand way, as well as energy calculation tools, thereby expanding our initiatives in the area. The targets set at the beginning of each year are reviewed quarterly to confirm progress. The achievement level of targets is reflected in the performance evaluation.

□ P034 <u>Single-family housing: Further increasing the number of ZEHs</u> Rental housing and condominiums: Promoting ZEH-M
P035 <u>Commercial and Office buildings: Hold ZEB seminars, put ZEB into practice and improve technological capabilities</u>

4°C scenario

A scenario with maximum GHG emissions under fossil fuel-dependent development with no climate policies implemented.

Reason for selection	The scenario with the biggest physical impact was selected to hypothesize the most extreme situation.
Result of analysis	Additional costs could arise due to supply chain disruptions and asset impairment due to damage to our facilities caused by heavy rain and heavy snow, and construction delay damages as extremely hot days will increase, which can be covered by sales growth of products to mitigate and adapt to climate change.
Reflection in policies and strategies	We have decided on policies of thoroughgoing measures against heatstroke at construction sites and development and popularization of products with low GHG emissions and products adapted to physical changes. We monitor progress using the number of heatstroke cases and installation rates of solar power generation systems and storage batteries at buildings we provide, etc. as key management metrics and reflect the results in our business strategies. □ P032 <u>Mitigating and adapting to climate change</u> P136 <u>Results and self-assessment of the Environmental Action Plan (Endless Green Program 2026)</u>

Main approach

We deployed environmental sensor at our construction sites in an effort to act promptly to prevent heatstroke or prepare for strong winds. We also formulated a business continuity plan for our supply chain, based on which we promoted measures, such as procuring materials from multiple suppliers and manufacturing sites. In the single-family housing business, we released the “Anti-Disaster House” equipped with the All-Weather Three Battery Linking System which can secure power, heating, and hot-water for some ten days in case of power outages even when it is raining. We have sold a total of 500 or more such houses by the end of fiscal 2022. In fiscal 2022, 90% of single-family homes had solar power generation systems and 56% had storage batteries.

□ P040 <u>Adapting to climate change —How to prevent heatstroke on construction sites</u>
P120 <u>Risk management and establishment of corporate ethics</u>

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Risk Management

We recognize that climate change risk is one of the risks with a significant impact in the medium- and long-term, and we have integrated this risk into the Group-wide risk management process. We identify and assess risks and opportunities in order to conduct a careful analysis roughly every three- five years in conjunction with the formulation of a Medium-Term Management Plan and Environmental Action Plan, which we apply to the identification of priority issues for the Plan, with these issues reflected in the major policies and targets of the Plan.

More specifically, the Environment Department identifies “changes in the external environment” accompanying the transition to a decarbonized economy and “physical changes” associated with global warming. We assess important risks and opportunities based on their likelihood and potential financial impact. Each department considers concrete measures to address the important risks and opportunities thus identified, and we establish key management metrics and targets for the Group, each department, and each worksite in the Environmental Action Plan and take necessary action. We also manage progress through the biannual Group Environmental Promotion Committee at the Group-wide level, the biannual departmental environmental committee for each department and a biannual ECO diagnosis/training session for each worksite.

P023 Environmental Management

P120 Risk management and establishment of corporate ethics

Metrics and Targets

Aiming to minimize the risks and maximize the opportunities associated with climate change, we have established short-, medium-, and long-term targets for the promotion of initiatives. We have established these targets as a set of metrics for the Medium-Term Management Plan. We have also established more detailed management metrics and targets in our Endless Green Program, the Environmental Action Plan formulated to align with the period covered by the Plan, in order to accelerate our initiatives with the aim of striking a balance between earnings and environmental sustainability.

P142 Environmental Data GHG emissions derived from use of products

P143 Environmental Data ZEH rate, ZEH-M rate, ZEB rate

P149 Environmental Data Energy consumption and energy efficiency (EP100)

P150 Environmental Data Electricity consumption and renewable energy utilization rate (RE100)

P155 Environmental Data Reducing GHG emissions in the value chain

Major issues for the Group and its responses

Below are the issues and our responses as we work toward achieving carbon neutrality throughout our value chain by 2050.

Reduction in the GHG emissions directly attributable to the company (scope 1 and 2) necessitates electrification of heavy machinery at construction sites and trucks used in logistics, so as to encourage the use of renewables-derived electricity. To decrease the GHG emissions in supply chains (scope 3 category 1), we promote the adoption of materials with low GHG emissions in the design phase with the use of LCCO₂ Calculation Tool connected to Building Information Modeling (BIM)*.

We also expect that manufacturers of materials with large emissions, such as iron and steel, cement, and aluminum, will develop innovative manufacturing technologies and make themselves renewables powered. As to the GHG emissions from downstream leased assets (scope 3 category 13), we will work to promote energy efficiency in cooperation with tenant companies, while at the same time increasing the supply of renewables-derived electricity to the areas exclusively owned by them.

To explore future business opportunities, we commenced studies toward marketing energy-efficient houses and buildings in the U.S. and elsewhere.

In the area of information disclosure, we see response to international requirements as a pressing issue, such as a set of new sustainability-related disclosure standards published by the International Sustainability Standards Board (ISSB), disclosure of potential financial impacts as recommended by TCFD, and the Taskforce on Nature-related Financial Disclosures (TNFD). To that end, we maintain a firm grasp on trends at home and abroad and prepare for such disclosure based on dialogues with institutional investors and experts.

* Digital three-dimensional models that incorporate building information. Enables consistent use of information throughout the life cycle of a building, from design to construction, and maintenance.

