TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Growth and resilience in a decarbonizing society

TCFD REPORT 2019

Sekisui House, Ltd. December 2019

SEKISUI HOUSE

Make home the happiest place in the world

The Sekisui House Group seeks to create housing that contributes to happiness in the era of the 100-year life, to help realize the philosophy of making home the happiest place in the world. We are now proposing to bring new value to the home through pursuing the safety, sense of security, comfort and environmental performance of homes. Our initiatives aim to address both today's issues, such as housing and health, and longer-term challenges, such as the global environmental crisis of climate change. Our strategies aim to comprehensively address these issues whilst simultaneously growing corporate value. After one of our houses is handed over to a client, a long-term relationship with the family begins. Our most important mission is to maintain a strong bond with clients while continuing to grow our business in a sustainable and healthy manner. In that sense, we are acutely aware that we must be a company that is responsive to the issue of climate change and the barriers it presents for business continuity.

Since the announcement of the Environmental Future Plan in 1999, the Sekisui House Group has faced the challenge of housing and the environment head on. In 2008, we were the first company in Japan to declare our ambition to eliminate CO_2 emissions from the entire housing lifecycle by 2050. A focus on decarbonization not only supports us in achieving our corporate mission, but is also in keeping with the targets set out in the Paris Agreement, which aims to limit global average temperature increase to 1.5℃ above pre-industrial levels.

Meanwhile, the Task Force on Climate-related Financial Disclosures (TCFD), set up by the Financial Stability Board (FSB), released recommendations to disclose the financial impacts of climate change. Sekisui House promptly endorsed its purpose. In this report, we present the results of our scenario analysis conducted in line with these recommendations, and introduce how climate-related risks and opportunities, including financial analysis, have been incorporated into our group-wide strategy.

Net-Zero Energy Housing (ZEH) already accounts for over 80% of Sekisui House's newly built detached houses. We are also steadily progressing across other measures and have currently not identified any major risks associated with the transition to a decarbonized society. This report concludes that despite the uncertainties associated with climate change, we are addressing risks related to physical changes. Going forward, we will pursue sustainable growth for our company and for society, through continued transparency and engagement with our stakeholders. We plan to use every day to find ways to strengthen our approach to this issue to ensure our management and monitoring systems remain effective. We thank you for your continued support.

Chairman & Representative Director
Toshinori Abe

President & Representative Director
Yoshihiro Nakai

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Executive Summary

Insights on climate change

In 2008, the Sekisui House Group announced its Vision 2050 that aimed to eliminate CO_2 emissions from the entire housing lifecycle, from the purchase of materials to manufacturing, sales, occupancy and demolition. We were the first Japanese company to shift management focus to decarbonization. As a milestone towards achieving this goal, by 2030 we aim to reduce CO_2 emissions from Scope 1 & 2 and Scope 3 (Category 11: Housing) sources by 50% and 45% respectively, compared to FY2013 (goals to be certified by the Science Based Targets initiative). In addition, as a RE100 member company, we will ensure 50% of electric power consumed by our business activities is from renewable energy sources by 2030, and 100% by 2040. This means that the Sekisui House Group is contributing to the transition to a decarbonized society while simultaneous building a strategy to increase corporate value.

However, as global warming worsens, regulations for reducing greenhouse gases are expected to become increasingly stringent. The Sekisui House Group is aware that climate-related transition risks and physical risks are manifesting concurrently and are constantly changing, requiring our business to respond in multiple ways. We are committed to finding ways to remain flexible in how we respond to these changing global trends to allow us to continue contributing to society.

Challenges in realizing the Sekisui House Group's goals

The TCFD recommendations require companies to describe the financial continuity of their business in a decarbonized society. We understand that a 1.5℃ scenario, where we shift to a decarbonized society, predominately presents transition risks, while a 4℃ scenario, in which temperatures rise due to global warming, presents mainly physical risks. However, even in a business environment oriented towards decarbonization (e.g. stricter regulations, increased carbon costs, and market/customer preferences for low carbon options), as needed in a 1.5 ℃ scenario, temperatures may still rise to the level outlined in a 4℃ scenario. For this reason, while we assess the appropriateness of our business strategies and projects in a decarbonizing society in line with a 1.5 ℃ scenario, we are also considering the business impacts of a 4℃ scenario. As a result, the Sekisui House Group's strategy consists of providing high quality housing products that assist in the transition towards decarbonization and can also withstand extreme weather. None of the identified transition and physical risks are likely to have a disruptive impact to our business (see Table 1).

The following risks are those that will require monitoring as part of future strategic planning:

- Increased laws and regulations aimed at energy-saving and decarbonization, and a growing market for low carbon housing
- Introduction of a carbon tax by governments
- Standardization of ZEH outside Japan
- Demand for advanced disaster-ready houses amid natural disasters becoming more frequent

The Sekisui House Group's understanding of opportunities and risks

Across the Sekisui House Group's eight business segments, we have identified the greatest opportunities to increase profits related to decarbonized products (ZEH and Net Zero Energy Buildings (ZEB)) in the following segments:

- Custom detached housing business (including condominium sales), rental housing business, remodeling business and real estate management fees business (in Japan)
- Overseas business (U.S., Australia and UK)

The Sekisui House Group has also recognized the following risks:

・Risk of a significant increase in the cost of carbon emissions
・Risk of significantly strengthened laws, regulations, or policies
・Risk of intensifying natural disasters
・Risk of chronic changes to climate patterns (sustained temperature rise, sea level rise)

The Sekisui House Group can minimize future risks through the existing and planned measures mentioned, therefore we recognize that the likely financial impact of these risks would be low. We also believe that contributing to the transition to a sustainable society is the mission of the Sekisui House Group. We are committed to ensuring the implementation of our measures and will continue to collaborate with external initiatives such as the SBT and RE100.

Table 1: Climate-related risks and opportunities and potential financial impacts

■**Risks**		Climate-related risks	Potential financial impact	
Transition risks	Policy and legal	Increase in price of GHG emissions	According to our calculations based on emissions in FY2018, a carbon tax of 10,000 yen/t-CO_2 could increase the Group's cost burden by 19.5 billion Japanese yen/year, equating to 0.9% of sales. It is anticipated that the actual cost would be lower, as by the time a carbon tax is introduced, our annual emissions will be lower given our commitments to RE100 etc.	19.5 billion yen/year
		Strengthening of reporting requirements for emissions	We have established a system that can respond to the increased obligation to report emissions (additional costs are incurred due to changes in reporting rules).	Extremely low
		Policy and regulations of existing products and services	It is possible that energy conservation standards may be strengthened, however we have already taken measures to anticipate this through standardizing ZEH specifications that are higher than existing standards, so no new measures will be needed in the short-term.	Extremely low
		Exposure to lawsuits	The risk is extremely low because our business is not significantly CO_2 emissions intensive.	Extremely low
	Technology	Replacement of existing products and services with low-emission alternatives	Low-emissions alternatives are already part of the Group's core business and in the future, will be expanded to all business areas. As such, there is limited need for further research and development expansion, as there is unlikely to be major systemic changes.	Extremely low
		Failure to invest in new technology	Currently there is no significant investment in new low-carbon technologies.	Extremely low
		Costs of transitioning to low-carbon technologies	This risk is already being addressed in our products. (In the future, electrification of the production line for original earthenware exterior wall panels will be required)	Extremely low
	Market	Changes in customer behavior	The Group is in the process of shifting to decarbonized products such as ZEH for detached houses, and will further promote this for rental housing and condominiums also.	Extremely low
		Uncertainty of market signals	We are confident in the transition to ZEH, as they provide energy savings, comfort and resilience.	Extremely low
		Rising costs of raw material	There may be an increased cost to procure timber due to global warming, and to procure iron products due to the shift to electric furnaces. However, these costs estimates are difficult to calculate presently.	Not calculated
	Reputation	Changes in consumer preferences	The degree of satisfaction of the Sekisui House Group's main product, ZEH, is very high.	Extremely low

		Stigmatization of sector	The housing industry is steadily promoting decarbonization so it is unlikely to be criticized.	Extremely low
		Growing stakeholder concerns or negative stakeholder feedback	The Sekisui House Group communicates its decarbonization plans to stakeholders.	Extremely low
Physical risks	Acute	Increased severity of extreme weather events, such as cyclones and floods	We have changed our design standards to incorporate risks associated with heavy rain and strong winds. The development of flood-resistant housing will be considered in the future and is not calculated this time.	Not calculated
	Chronic	Changes in precipitation patterns and extreme fluctuations in climate patterns	We have estimated the risk of factory flooding (for our Kanto factory) to amount to 28.5 billion Japanese yen. However, damage losses are already covered by insurance. We do not have large assets, such as lots for sale that could be at risk of flooding. To avoid future damage, we have established rules for dealing with such assets, such as hazard maps when purchasing land.	(28.5 billion yen)
		Rising average temperature	ZEH offers comfortable indoor settings. Measures have been planned at construction sites to avoid heatstroke, such as installing coolers at sites, wearable vital sensors and cooling jackets, etc., but these are not calculated this time.	Not calculated
		Rising sea levels	The Sekisui House Group's five factories in Japan are more than 10 meters above sea level, and the factories in Australia and China are inland, with no likely direct damage exposure.	Almost none

■ **Opportunities**		Climate-related opportunities	Potential financial impact	
Opportunities	Resource efficiency	Relocation to high-efficiency buildings	Increased demand for ZEB (not calculated this time)	Not calculated
	Energy source	Use of lower-emission sources of energy	To achieve our RE100 initiative targets, the purchase of renewable energy certificates could cost up to 150 million Japanese yen/year. Instead, the targets will be met at no additional cost by leveraging the Sekisui House Owner Denki - A system that purchases surplus power from solar power generation systems installed on the roofs of Sekisui House owner's houses and used as business power.	(150 million yen/year)
		Use of supportive policy incentives	Use of ZEH subsidies (not calculated this time)	Not calculated
	Products and services	Development and/or expansion of low-emission products and services	The estimated sales increase by 2030 of each segment is: detached housing business (9.68 billion yen/year), rental housing business (4.08 billion yen/year), remodeling business (16.2 billion yen/year), real estate management fee business (2.5 billion yen/year) and the overseas business (3.3 billion yen/year).	35.76 billion yen/year

* Prepared with reference to the *Final Report: Recommendations of the Task Force on Climate-Related Financial Disclosures* (June 2017)

SECTION 1

The Sekisui House Group's Climate Change Strategy

Since 2008, the Sekisui House Group has been working towards a decarbonized society. This section describes the direction and strategy of the Group's decarbonized management and how scenario analysis has been utilized. The analysis concludes that no significant issues are likely to impact the Sekisui House Group's strategy.

Climate-related governance

The Sekisui House Group holds a CSR Committee twice a year to establish policies, discuss initiatives, and monitor whether our ESG-related activities are reasonable and in line with societal expectations. Addressing climate change is one of the committee's key agenda items, and the adequacy of policies and activities are reviewed in each session.

Alongside the CSR Committee, a company-wide Environmental Committee is held, to allow for more targeted discussions. The Environmental Committee is led by the director in charge of climate change and includes the director of the technical divisions as a member. Decisions made by the CSR Committee are disseminated to all business areas through the Environmental Committee and the seven CSR Department Subcommittees, which meet on a department-specific basis.

The CSR Committee is responsible for monitoring the effectiveness of climate-related initiatives. The members, who are the directors or general managers in charge of each department, approve instructions to their own departments and are provided routine reporting on progress.

Insights on climate change

In 2008, the Sekisui House Group announced its Vision 2050 that aimed to eliminate CO_2 emissions from housing and we quickly shifted management

Figure 1: Climate change governance

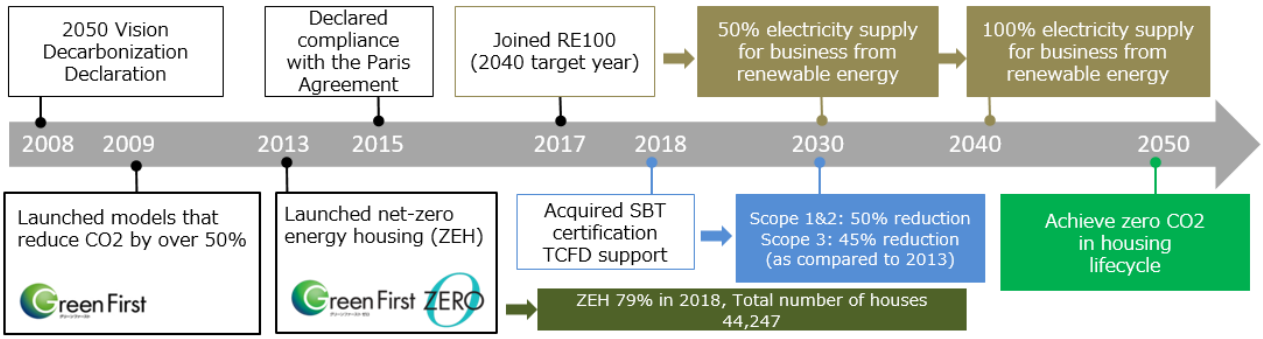


Figure 2: The Sekisui House Group's decarbonization milestones

focus to decarbonation. To achieve this challenging target for 2050, we will aim for eliminating CO_2 emissions from the entire housing lifecycle, from the purchase of materials to manufacturing, sales, occupancy and demolition, including renewable energy usage. This 2050 decarbonization target is consistent with the 1.5℃ target.

As a milestone towards achieving this goal, by 2030 we aim to reduce CO_2 emissions by 50% from Scope 1[i] (direct emissions: owned factories, offices, vehicles, etc.) and Scope 2 (indirect emissions: energy consumed by the company, such as electricity), and by 45% from Scope 3 sources (Category 11: Housing), compared to FY2013. This target is a level based on the Science Based Targets initiative (SBT) [ii], and is well below 2℃ (WB2℃) from pre-industrial levels. The target for SBT did not reach 1.5 ℃ as Scope 1 includes fuel consumption of heavy equipment at construction sites, which was deemed to be difficult for the Group to reduce in the short-term.

In addition, as a RE100 member company, we will ensure 50% of electric power consumed by our business activities is from renewable energy sources by 2030, and 100% by 2040.

The initiatives above assist the Sekisui House Group to contribute to the transition to a decarbonized society while simultaneously building a strategy to increase corporate value. The Sekisui House Group is aware that climate-related transition risks and physical risks are manifesting concurrently and are constantly changing, requiring our business to respond in multiple ways. We are committed to finding ways to remain

Table 2: Main activities of the Sekisui House Group and decarbonization targets

Main Actions Taken	・Developed and launched energy-saving and disaster-ready housing (2004) ・Announcement of Eco First Promise (2008) ・Launched the Green First model of eco-friendly homes (2009) ・Launched the net zero-energy Green First ZERO model (2013) ・Paris Agreement Compliance Declaration (2015) ・Participation in RE100 international initiative and announcement of commitment (2017)
2030 Goals	Achieving SBT goals With the goal of achieving zero CO_2 emissions throughout the housing lifecycle, we aim to reduce emissions by 50% for Scope 1 & 2 and 45% for Scope 3 (category 11: Housing) compared to FY2013 (SBT goal). Also, as a RE 100 member company, we will ensure that 50% of the electric power consumed by our business activities is from renewable energy sources.
2050 Challenge Objectives	Zero CO_2 emissions within the housing lifecycle As a leading company in housing products, we will eliminate CO_2 emissions from the entire housing lifecycle, from the purchase of materials to manufacturing, sales, occupancy and demolition, including renewable energy usage.

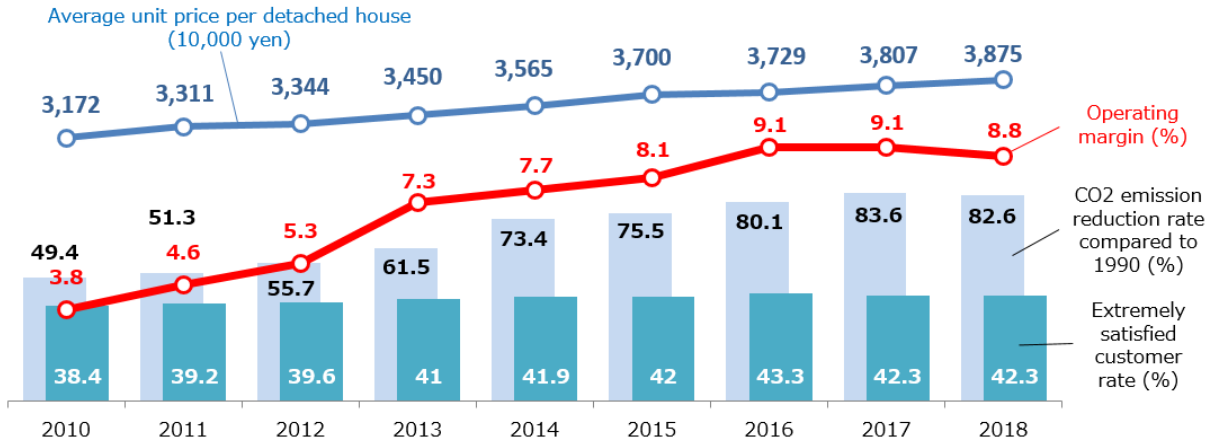


Figure 3: Relationship between decarbonization strategy and business

flexible in how we respond to these changing global trends to allow us to continue contributing to society.

Challenges in realizing the Sekisui House Group's goals

As stated in our Vision 2050, we believe that the Sekisui House Group's goal is to lead the way to a decarbonized society. An important component of the Sekisui House Group's decarbonization strategy is that it is consistent with the business strategy. For example, we began selling eco-friendly homes in 2009, enabling an 82.6% reduction of residential CO_2 emissions by 2018, compared to 1990 levels. In addition, between 2008 and 2018, the average unit price increased by 20% and operating margin almost doubled (see Figure 3). During this period the ratio of *very satisfied* customers in our satisfaction surveys increased by 10% (the satisfaction survey includes seven levels: *very satisfied*, *satisfied*, *somewhat satisfied*, *neither*, *somewhat dissatisfied*, *dissatisfied*, and *very dissatisfied*. The sum of *very satisfied, satisfied* and *somewhat satisfied* totaled 96%). While these achievements cannot be solely attributable to our decarbonization strategy, we believe the strategy contributed positively towards these outcomes.

To achieve decarbonization, we believe our decarbonization initiatives must be conducive to business growth. When developing housing with high energy-saving performance, our efforts will not contribute to decarbonization if the product does not meet consumer needs or lead to business sales. Thus, the Sekisui House Group develops and sells high energy-saving housing that are valued and accepted by our many consumers. Contributing to decarbonization whilst increasing market share and strengthening our reputation will position us for further corporate growth. Using this revenue source, we will promote the development of higher performance housing that helps respond to the issue of climate change and bring this housing to the market. As a RE100 member company, we will also increase the proportion of renewable energy used in our business activities.

To reach this goal, an effective strategy is essential, that is, the timely and appropriate allocation of resources. Choosing the right strategy to adopt is critical to anticipate the future business environment as accurately as possible. However, climate change presents a long-term uncertainty that makes forecasting difficult. Therefore, the Sekisui House Group is exploring multiple possible scenarios of how climate change may shape society, with the aim to embed flexibility in the business to respond to these different possibilities.

It is possible that global warming will continue to intensify even if businesses transition to a decarbonized society. As such, it is necessary to formulate a strategy to cope with the potential

Table 3: Scenario analysis assumptions

Item	Assumptions
Scenario	A business environment in which society has decarbonized according to the 1.5℃ scenario, but where temperatures have also risen as per the 4℃ scenario.
Target companies and businesses	All existing businesses of the Sekisui House Group's companies*.
Quantitative / qualitative	Mainly qualitative analysis of all existing businesses of the Sekisui House Group's companies. Quantitative estimates for the financial impact of significant risks and opportunities.
Impact on Japanese market size	The Sekisui House Group has most of its sales in the Japanese market (approximately 90% of sales from February 1, 2018 to January 31, 2019). The Japanese housing market is expected to contract gradually due to the shrinking population, declining birthrate, and aging population. While this trend is significant, it has not been considered in this analysis, as the focus is climate change-related impacts.

* The Sekisui House Group companies refer to Sekisui House, Ltd. and 268 consolidated subsidiaries. (As of the end of July 2019)

associated risks. Later in this report we will describe the key risk factors that could have a financial impact and will require monitoring as part of future strategic planning.

Leveraging scenario analysis

Across the Sekisui House Group we are striving to transition towards a 1.5℃ scenario for all existing businesses. To consider all relevant risks, we have assessed the resilience of our business strategy assuming both transition risks and physical risks, such as extreme weather events, which may manifest in a 4℃ scenario. Table 3 outlines the assumptions of the study.

Demonstrating the resilience of the Sekisui House Group's strategy

The Sekisui House Group's strategy consists of providing high quality housing that offers high environmental performance and can also withstand extreme weather. The Group has already begun providing products that assist in the transition towards decarbonization and has established disaster prevention measures across the entire business. Presently, we have not identified any transition risks, associated with a shift to a decarbonized society, or physical risks, associated with global warming, that are likely to have a disruptive impact to our business (see Page. 5, Table 1).

SECTION 2

Risks and opportunities in a 1.5℃ scenario

Under a 1.5℃ scenario, our company will need to adapt to a decarbonizing society. To understand this in more detail, we qualitatively analyzed which risk factors could pose a significant financial impact to the business. For the risk factors deemed as high, we further sought to quantitatively estimate the potential financial impact. No major transition risks were identified, as the Sekisui House Group has had a management focus on decarbonization since our Decarbonization Declaration in 2008. Instead, the increasing demand for low-carbon products may present significant opportunities for the business.

Key risk factors that may pose a high financial impact

Based on our analysis, the following risks are those that will require monitoring as part of future strategic planning:

- Increased laws and regulations aimed at energy-saving and decarbonization, and a growing market for low carbon housing
- Introduction of a carbon tax by the Japanese government
- Standardization of ZEH outside Japan
- Demand for advanced disaster-ready houses amid natural disasters becoming more frequent

(1)Opportunities for the Sekisui House Group

Across the Sekisui House Group's business segments, we have identified the greatest opportunities to increase profits related to low carbon products from ZEH and ZEB. We believe low carbon products are likely to become a major pillar of the Sekisui House Group's business, and there is no need for any major strategic change across the segments. We will continue to monitor changes in market needs, international trends, and the emerging effects of global warming to inform the Sekisui House Group's strategy and initiatives, as necessary.

The detached housing business (Japan)

In 2013, the Sekisui House Group launched the Green First ZERO product range based on Japanese government plans to standardize net-zero energy

Photo 1: Features of Sekisui House Group homes

– a tiled solar cell roof and indoor-outdoor integrated space -

housing. Since its launch, we have been promoting the spread of Green First ZERO as ZEH homes by conveying its merits through site tours, periodic seminars and conducting various other activities.

We believe that the goal of building a house is not to save energy, but to design and build a home that is comfortable. An enjoyable living environment can be created through the integration of indoor and outdoor spaces. Sekisui House Group homes are lifestyle-focused, incorporating the customer's site and needs while still being zero-net energy. To achieve this, small integrated solar cells are installed directly on the roof, enabling installation even on the most complex shaped roofs found across Japan. Typically, smaller window sizes are more effective at preventing heat from escaping, enabling energy savings. However, customers in our homes can enjoy their garden views through large, bright windows, as the Sekisui House Group's ZEH utilize advanced heat insulation systems.

As a result of the above initiatives, ZEH currently accounted for 79% of our newly built detached houses in FY2018, with the total number of ZEH reaching 44,247 units as the highest ZEH provider in Japan (Japanese average ZEH ratio was 13% in FY2018[iii]). In addition, Sekisui House, Ltd. was recognized as a leader in the Japanese market for its outstanding achievements in the prevention of global warming through the promotion of ZEH. We were awarded the 2018 Minister of the Environment's Award for Global Warming Prevention Activity, organized by the Ministry of the Environment.

We anticipate that future ZEH will need to deliver superior disaster-readiness, as well as energy-saving performance. In 2004, the Sekisui House Group launched sales of energy-saving and disaster-ready housing - the first housing in Japan to supply energy, water and food for one week so that residents can remain indoors even in the event of a disaster[iv]. In the future, if ZEH becomes mandatory, given its high resilience, it is unlikely that we will need to make additional capital investment into our factories. Rather, the Sekisui House Group will benefit from a competitive advantage given the existing design experience and business know-how.

Photo 2 Japan's first ZEH rental house by the Sekisui House Group

To estimate the potential financial opportunity, we assumed that in the future the average price per building would increase by 2.5% due to changes in the required performance of ZEH (additional storage batteries and mandatory enhancement of energy-saving performance). Since we launched sales of eco-friendly homes in 2009, the average unit price per building has already increased by 20%. The increase in sales is assumed as follows, based on the average unit price per building and the actual number of buildings in 2018:

38.75 million yen/house× 2.5% × 10,000 houses/year = 9.68 billion yen/year

Rental housing business (Japan)

High quality rental housing can enable stable occupancy rates and owner's rental income over the long-term. With climate change in mind, the Sekisui House Group's ZEH offers high-quality rental housing for a decarbonized society, by optimizing environmental performance, resilience, and quality of homes. Among different types of houses, around 30% of the CO_2 emissions come from collective housing. With the aim of decarbonizing housing, the Sekisui House Group begun ZEH rental housing in addition to Green First ZERO (ZEH) for detached houses.

For example, in January 2018, we constructed Japan's first rental housing with ZEH standards in all units in Kanazawa City, Ishikawa Prefecture under our Sha Maison rental housing brand. Since

then we have constructed many ZEH units across Japan, focusing mainly on enabling the residents to use the electricity generated with the photovoltaic systems. The total number of houses stood at 45 (244 units) at the end of March 2019. Amongst other factors, the provision of Japanese government ZEH subsidies for apartments suggests that the Sekisui House Group is currently the most active company promoting ZEH for rental housing.

To estimate the potential financial opportunity, we assumed that the price of ZEH rental housing will increase by approximately 600,000 yen per unit (results for fiscal 2018). By around 2030, if 25% of 27,412 units (compared to units sold in FY2018) will be ZEH (approximately 6,800 units), total sale price will increase as follows.

600,000 yen/unit x 6,800 units/year =
4.80 billion yen/year

At present, there are few ZEH rental units in Japan, and there are situations where consumers cannot select ZEH rental units. For this reason, in recent years the Sekisui House Group has aimed to increase the stock by supplying 400-500 ZEH rental units per year (the largest number in Japan), to make a market of ZEH rental housing, to seek out potential customers and gain the first-mover advantage.

Remodeling business (Japan)

The Sekisui House Group is proactively promoting the remodeling of houses that are more than two decades old to match the insulation level of newly built ones to provide a comfortable indoor environment such as named Idokoro Dan-netsu (location-based heating) and to replace equipment with the latest energy-saving technology. In Japan, repairing existing houses can be difficult, as under tax laws, the building value is entirely diminished after approximately 20 years. We are promoting reform through SumStock, a joint initiative operated by several major pre-engineered housing manufactures, aimed at improving the process of asset appraisals.

To estimate the potential financial opportunity, we estimated that if 10% of the 760,000 detached houses with low energy-saving performance are partially remodeled by 2050 (assumed based on the results of prior insulation remodeling work), annual sales would increase as follows:

6 million yen/house x 2,500 houses/year =
15 billion yen/year

Our rental housing stock is currently 1.2 million units. If we renovate 60,000 units, which is 5%, into ZEH units in the next 30 years leading up to 2050, it equates to 2,000 units being renovated per year.

If the renovation cost per unit is 600,000 yen, which is equivalent performance to a newly built ZEH, the sales increase would be as follows:

600,000 yen/unit x 2,000 units/year =
1.2 billion yen/year

Based on the above, we believe that the financial impact on our remodeling business may be an annual sales increase of 16.2 billion yen. In the future, we may see additional opportunities across existing housing, driven by mandatory standards for insulation repairs.

Real estate management fees business (Japan)

The Sekisui House Group operates a sub-lease real estate management fees business that leases a collection of rental housing. Future business profits expected to increase, driven by increasing rental prices and rental income from ZEH.

The rent increase is expected to be about 5,000 yen/unit per month on average, equating to 60,000 yen/unit per year. By 2030, the number of managed rental units is expected to be approximately 835,000. If 5% of these units are ZEH, the annual rental income would increase as follows:835,000 units x 5% x 60,000 yen =
2.5 billion yen/year

Overseas business (U.S., Australia, UK)

Sekisui House's overseas business has been growing each year, and in our ongoing Fourth Mid-Term Management Plan (FY2017-FY2019), we have positioned it as the fourth pillar of our growth strategy along with our built-to-order, supplied housing, and development businesses. The overseas business operates in five countries:

Australia, the United States, China, Singapore and the United Kingdom. We aim to make full use of the strengths we have developed as a leading Japanese pre-engineered housing company to offer highly satisfying housing suitable for each county's culture, lifestyle habits, and natural environment. We believe that our environmental technologies, including ZEH, which takes global warming and resource issues into consideration, can contribute to resolving social issues faced by each country.

Currently, ZEH is not yet sold in the United States and Australia where we are engaged in the detached housing business. As each country transitions towards decarbonization, the potential for ZEH to enter the markets increases, as reflected in the strengthened regulation related to thermal insulation and mandatory installation of solar panels in new housing in California in the United States (since 2020). With the tightening of environmental laws and regulations in the United States, there is mounting consumer interest in sustainable homes. We anticipate the latent need for ZEH on the basis that energy-saving performance in line with ZEH will become mandatory in the near future in countries where people generally move roughly every 10 years.

For this reason, we have started initiatives to expand our overseas business. We will leverage the Sekisui House Group's strengths in environmentally friendly housing to introduce advanced housing technology suitable for the local market and develop ZEH that meets local needs. We have already completed construction of several ZEH model buildings in Australia and the United States and are currently strengthening local sales knowledge. A similar approach will be considered for the UK.

The potential impact of climate change on our overseas business is high, as ZEH specifications could increase the sales price from 10,000 to 20,000 U.S. dollars per unit. If we assume the total number of houses sold per year is 3,000, and all of these sales were converted to ZEH, total sales price would increase as shown below.

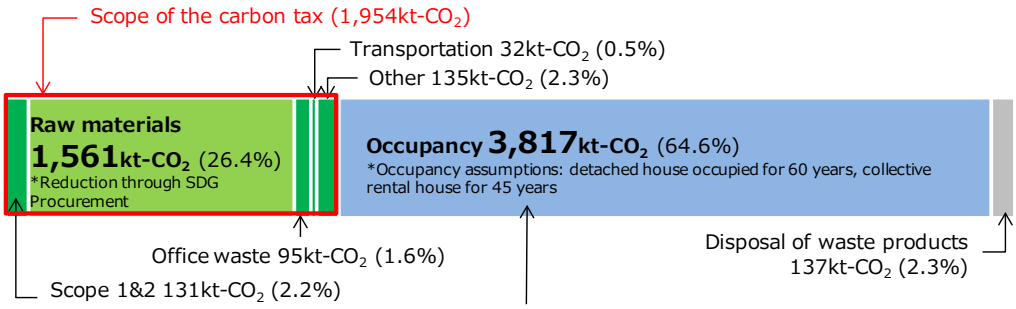
10,000 US dollars/house × 3,000 houses/year × 110 yen/US dollars = 3.3 billion yen/year

As Japan's leading ZEH developer, we will leverage our design and sales knowledge to promote and localize ZEH in each country.

(2) Risks for the Sekisui House Group

Risk of a significant increase in the cost of carbon emissions

As new regulations are introduced to accelerate the transition to a decarbonized society, there is the risk that a carbon tax will be introduced, causing a significant increase in energy costs. This change would impact the Sekisui House Group's entire value chain. In response, the Sekisui House



Scope 1: CO_2 emissions from fuels used by the Sekisui House Group
Scope 2: CO_2 emissions from electricity and heat purchased by the Sekisui House Group
Scope 3: CO_2 emissions from energy used for mining and producing raw materials, transporting building components, disposing of waste by non-Sekisui House Group companies, and occupancy by customers

Figure 4: Sekisui House Group's value chain CO_2 emissions in FY2018

Group has set SBT goals and is promoting various initiatives to reduce CO_2 emissions.

Scope 3 (Category 11: Housing) emissions account for about 65% of the total CO_2 emissions in the value chain (see Figure 4). This is largely attributable to the energy consumed whilst the house is being occupied, which would not impact the direct tax burden of the Sekisui House Group. The Sekisui House Group's houses are designed to provide advanced energy savings and low CO_2 emissions per house, therefore there would be minimal associated tax burden for individual owners. For this reason, we believe that the sales opportunities from the introduction of a carbon tax would outweigh the associated risks for the Sekisui House Group. This is true not only for detached houses, but also for other buildings such as promoting ZEH rental houses, condominiums and ZEB offices. The cost of further investment in R&D and upgrades of plant equipment for ZEH is minimal.

The next largest source of emissions is from the procurement of housing parts such as kitchen sets or toilets, accounting for approximately 26% of total emissions. Although it is difficult for the Sekisui House Group to directly reduce emissions produced by the manufacturers of building materials, we are shifting towards SDG Procurement and we have revised our procurement standards to cover 48 items, including measures against climate change. Through procurement we will promote decarbonization as much as possible.

The remaining 9% of CO_2 emissions are from design, R&D, manufacturing and other business activities. To address emissions associated with electricity, we are changing office lights to LED and promoting the use renewable energy, as part of RE100. We are also working to improve the energy efficiency of our factory equipment and switching to high fuel efficiency corporate vehicles. In the short-term, gasoline vehicles can be switched to hybrid models with a slight increase in cost. In the longer-term, we plan to switch to electric vehicles coupled with renewable energy power, which we do not anticipate will present any significant financial burden.

We have created a unique business model for achieving our RE100 target. In 2009 the Feed-in-Tariff (FIT) system started as a scheme under which surplus renewable energy could be purchased at a fixed price for a specific period. However, the specified period for purchasing electricity from residential PV solar systems (less than 10kW) was 10 years, and this period started to expire from November 2019 onwards. Initially, owners were worried about how surplus electricity would be handled after the end of the FIT period, as the power company was under no obligation to purchase it. As such, Sekisui House launched an innovative business model called Sekisui House Owner Denki, which will purchase excess electricity from post-FIT homeowners whose specified period has expired, and use this for corporate operations of the Group. The total capacity of photovoltaic systems installed by Sekisui House on its detached and rental houses until now is over 700MW, with annual generation of approximately 700 GWh. By purchasing 20-30% of post-FIT electricity, the group can cover its operating electricity needs of 120GWh annually. Sekisui House Owner Denki is the company's innovative business model that provides greater satisfaction to post-FIT homeowners while enabling the company to meet its RE100 initiative targets at no additional cost. Furthermore, once the RE100 target is achieved, it can be expanded to create zero energy towns and across the entire supply chain.

The CO_2 emissions from the Sekisui House Group's business activities were 1.95 million t-CO_2/year in FY2018. Assuming a carbon tax was introduced priced at 10,000 yen/t-CO_2 [v], the financial impact is estimated as follows:

1.95 million t-CO_2/year x 10,000 yen/t-CO_2 = 19.5 billion yen/year

Sales in 2018 were 2,160 billion yen, therefore the impact calculated would be equivalent to approximately 0.9% of sales. In addition, we will continue to reduce our total CO_2 emissions to ensure that the impact of a carbon tax would be minimal.

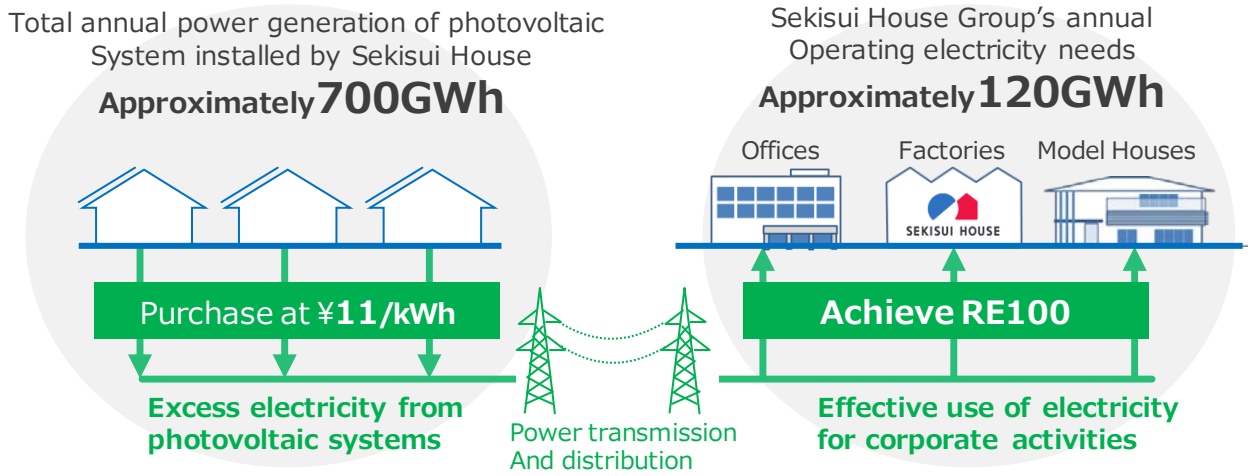


Figure 5 The Sekisui House Owner Denki model

Other risks

The shift to a decarbonized society is expected to require tightening of greenhouse gas emission regulations. As such, steel products, which we use as a structural material, may increase in price or become more difficult to source. The potential price increase associated with this is already incorporated within the calculation of financial impacts of a carbon tax above. If it becomes difficult to source steel products, we will work closely with manufacturers to reduce the amount of steel materials, for example by developing high quality reinforced steel. We will also continue paying close attention to the steel industry's efforts to decarbonize. Since its foundation, the Sekisui House Group has built more than 2.4 million homes. In the future, it may also be possible to collect structural building materials when dismantling existing houses, to process and reuse them.

A resilient business strategy in a 1.5℃ scenario

The Sekisui House Group's strategy consists of providing high quality housing that offers high environmental performance and can also withstand extreme weather. The Group has already begun providing products that assist in the transition towards decarbonization and we have not identified any transition risks associated with a shift to a decarbonized society that are likely to have a disruptive impact to our business.

SECTION 3

Risks and Opportunities in a 4℃ Scenario

In the 4℃ scenario, even as we transition towards a decarbonized society, our company is exposed to the physical risks of extreme weather events. After analyzing the potential risks associated with intensifying natural disasters and sustained higher temperatures, we have not identified any major risks to the business. While some of our factories are at risk of being impacted, we have taken proactive measures to prevent this. Furthermore, we have already mitigated the risks associated with our products. Conversely, we believe that homes that respond to natural disasters and rising temperatures are strengths and business opportunities in such situations.

(1) Risks for the Sekisui House Group

Risk of strengthened policies and regulations

In the 4℃ scenario, laws, regulations and policies are not strengthened at first, so this effect is limited. As time progresses, the effects of global warming are witnessed firsthand, spurring public support for swift action towards decarbonization. It is expected that this delayed response will result in law, regulation and policy change that is more stringent than compared to a 1.5℃ scenario. However, the Sekisui House Group already has the best track record in Japan in building ZEH houses with excellent energy-saving performance and disaster-readiness. The Sekisui House Group believes that we will be able to respond promptly even if the effects of climate change increase and regulations are tightened.

Similarly, in the 4℃ scenario once a carbon tax is introduced, it may be priced higher than the 10,000 yen/t-CO_2 level assumed in the 1.5℃ scenario. Given the Sekisui House Group will reduce its total CO_2 emissions to achieve our SBT and RE100 targets, the financial impact of a carbon tax is likely to be less than the figure of 19.5 billion yen/year calculated as part of the 1.5℃ scenario.

Risk of intensifying natural disasters

We recognize that the intensification of natural disasters, such as large typhoons and floods, poses risks to business continuity. The Sekisui House Group conducts business across Japan, with the exception of Okinawa. Should a natural disaster occur across some areas, we would maintain business continuity through support from operations in unaffected areas.

Sekisui House, Ltd.'s five factories in Japan could be exposed to flooding from local rivers during periods of heavy rain, but we plan to cover any potential damage with insurance. For these five factories, the potential cost of damage was calculated by estimating the inundation depth using flood risk maps and inland flood models. Of the five factories, all but our Hyogo site are exposed to risk of flooding. The single largest estimate of damage from flooding is for the Kanto Factory, which was estimated to be up to 28.5 billion yen. Our insurance for the site would be sufficient to cover this level of damage.

The risk of flooding at each factory at the same time is relatively low, and the sites are spread out across the country. Therefore, even if one factory is damaged and operations are paused, most goods could be supplied and distributed by other unaffected locations, to maintain operations. We further protect against the exposure to supply chain interruptions related to natural disasters

through maintaining a diversified set of suppliers, as well as engaging suppliers with multiple sites. The Risk Management Committee is responsible for implementing the Business Continuity Plan (BCP) and related measures.

The Sekisui House Group has made design changes to many of its products to improve their ability to withstand extreme weather events, such as heavy rain or strong winds. Therefore, we do not believe extreme weather is likely to create a significant financial impact at this time. As the frequency of extreme weather events increases, so too does the need for homes with disaster-readiness built in. The Sekisui House Group began developing energy-saving and disaster-ready houses since 2004, well ahead of our peers.

Before purchasing land in lots, we have made it mandatory to utilize hazard maps to assess potential risk. We also use hazard maps to minimize risk exposure when constructing buildings, such as condominiums.

Risk of chronic extreme weather (sustained higher temperatures, rising sea levels)

If we see a sustained long-term increase in temperatures, the risk of heat stroke at construction sites and during occupancy could increase. In sunny conditions, ZEHs can generate solar power, providing ease of mind to owners who may be concerned about the cost or CO_2 emissions associated with air-conditioning use. We hope that this will reduce the risk of heat stroke amongst residents. This is also the case for rental housing built with ZEH. Typically, residents in rental housing do not have the option to use solar power. However, in ZEH rental housing air conditioning can be used without hesitation, just like ZEH in detached houses, thereby reducing the risk of heat stroke.

To minimize the risk of heat stroke at construction sites we have installed drinking water and work clothes with cooling fans. In the future, additional coolers will be installed in houses under construction, and vital sensors will be used to monitor the physical condition and safety of individual workers. By aiming to create the world's happiest workplace, we hope to maintain a secure supply of construction workers over the long-term.

The Sekisui House Group's five factories in Japan are located more than 10 meters above sea level, so there is no risk of becoming submerged by rising sea levels. Similarly, factories in Australia and China are located inland, therefore there is no danger of becoming submerged by rising sea levels.

(2) Opportunities for the Sekisui House Group

Overall housing business

In the 4℃ scenario, it is likely that damage to housing will increase due to large typhoons, heavy rain and flooding, all exacerbated by global warming. The Sekisui House Group has already improved the disaster-readiness of our houses. We hope this strong track record will enable us to be first choice when other houses are undergoing remodeling due to damages. We have already seen this to be the case when residents have needed to rebuild their homes after an earthquake, as our buildings offer excellent seismic resistance, preventing damage during earthquakes.

As described previously, our ZEH can help minimize the risk of heat stroke amongst residents if we experience sustained higher temperatures. ZEHs offer the market the opportunity to live safely in a climate with sustained high temperatures. We expect the demand to increase for both detached houses and rental housing. We believe we will be positioned to respond competitively to this demand, as long-term promoters of ZEHs with an excellent track record for building ZEH.

SECTION 4

Future considerations

Based on the research above, the Sekisui House Group does not predict that climate change will present a significant financial burden to the company. Nevertheless, it is important for Sekisui House Group to contribute towards the realization of a decarbonization society by 2050.

The Sekisui House Group will continue to monitor the major risk factors identified in this analysis that could have a significant financial impact, with the aim to achieve a decarbonized society. We are also ensuring that we have the appropriate governance system established for managing our approach.

Given the many uncertainties related to climate change and its impacts, it is essential for us to tap into external knowledge to determine how we can best respond as an organization. For the Sekisui House Group to demonstrate leadership amongst the international community, we will continue to engage with stakeholders. For example, Sekisui House, Ltd. was a signatory to the Global Alliance for Buildings and Construction (GABC) at the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), the only private Japanese company to do so.

A future challenge for the Sekisui House Group will be in achieving our value chain CO_2 emissions reduction plan (Figure 6).

In the medium to long term, we need to work with construction companies to reduce gasoline consumption of construction workers' vehicles in order to reduce CO2 emissions at construction sites. In addition, electrification of heavy construction machinery must wait for the development of manufacturers. To reduce CO_2 emissions associated with procured materials, it is essential for manufacturers of building materials to find ways to reduce emissions through the manufacturing and transportation stages.

However, each house requires products for a diverse range of manufactures, and each building

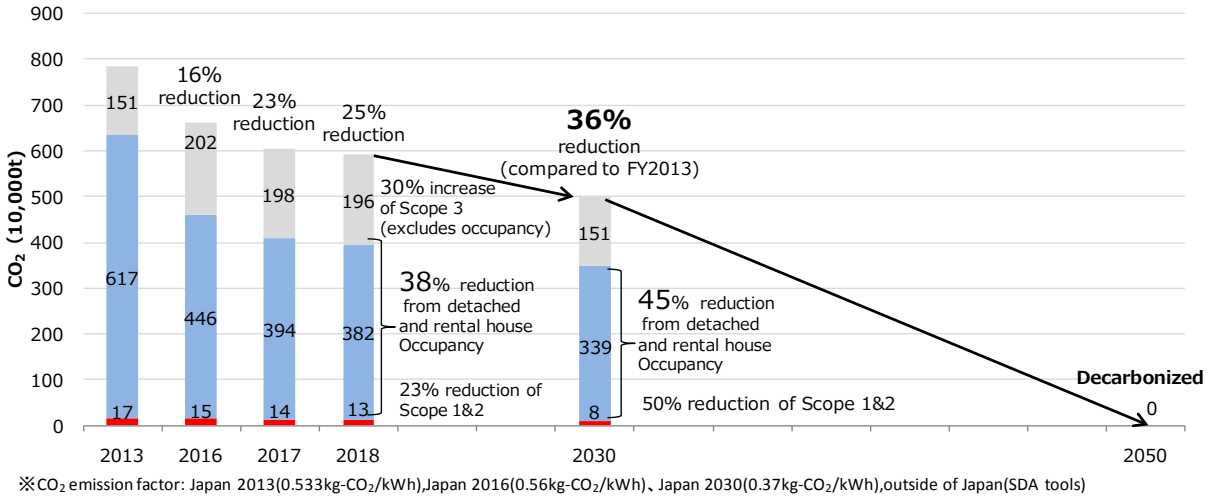


Figure 6: The Sekisui House Group's value chain CO_2 emission reduction plan

(※The English version has been modified from the Japanese version)

type, in turn, uses a differing range of products. Many companies are often involved in making just one building material, including multiple small and medium-sized companies. Furthermore, building material manufacturers may supply their products to multiple housing companies. This combination of factors means that efforts across the entire industry are essential to reduce CO_2 emissions of building materials.

We will continue to incorporate the latest information on risks, to further quantify and improve the accuracy of our scenario analysis. Our aim is to ensure that scenario analysis remains an effective and utilized tool for strategic and financial planning. We believe that contributing to the transition to a sustainable society is the mission of the Sekisui House Group. Going forward, we will continue to work with external initiatives such as SBT and RE100 to ensure that we are taking necessary steps toward decarbonization.

Appendix: Approach to climate scenarios

Climate scenario analysis is a fundamental component of the TCFD report. We need to consider simultaneously the effects a 1.5℃ scenario, where there is progress towards decarbonization; and a 4℃ scenario, where global warming continues to worsen. This is the basis of the Sekisui House Group's decarbonization strategy.

About climate change

According to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), if global warming continues at its present rate, the global average surface temperature in 2081-2100 is expected to be in the range of 2.6-4.8℃ higher relative to the yearly average in 1986-2005. In addition, sea level is estimated to rise 82cm by 2100[vi].

There are eight risks associated with this:

1) Sea levels and storm surge damage along the coast
2) Flood damage to large cities
3) Infrastructure failure due to extreme weather events
4) Death and illness from heat waves, especially in vulnerable urban areas
5) Food security threatened by rising temperatures and drought
6) Livelihood and income loss in rural areas due to lack of water resources and reduced agricultural production
7) Loss of marine ecosystems in coastal waters that are important for livelihoods
8) Loss of services from terrestrial and inland water ecosystems

The effects of this rise in temperature may present significant impacts on business activities, predominately due to physical risks.

Given this, the goal of the Paris agreement is to prevent temperature rise from exceeding 2 ℃ above pre-industrial levels. However, even if stated country-specific CO_2 emission reductions targets are achieved, temperature increases are estimated to still exceed 2℃[vii].

On October 8 2018, the IPCC Special Report on 1.5℃ was published[viii].

According to the report, global average temperatures have already risen approximately 1℃ relative to pre-industrial levels, due to human activities. Should this temperature rise continue, there is a high probability that global average temperature rise will reach 1.5℃ between 2030 and 2052.

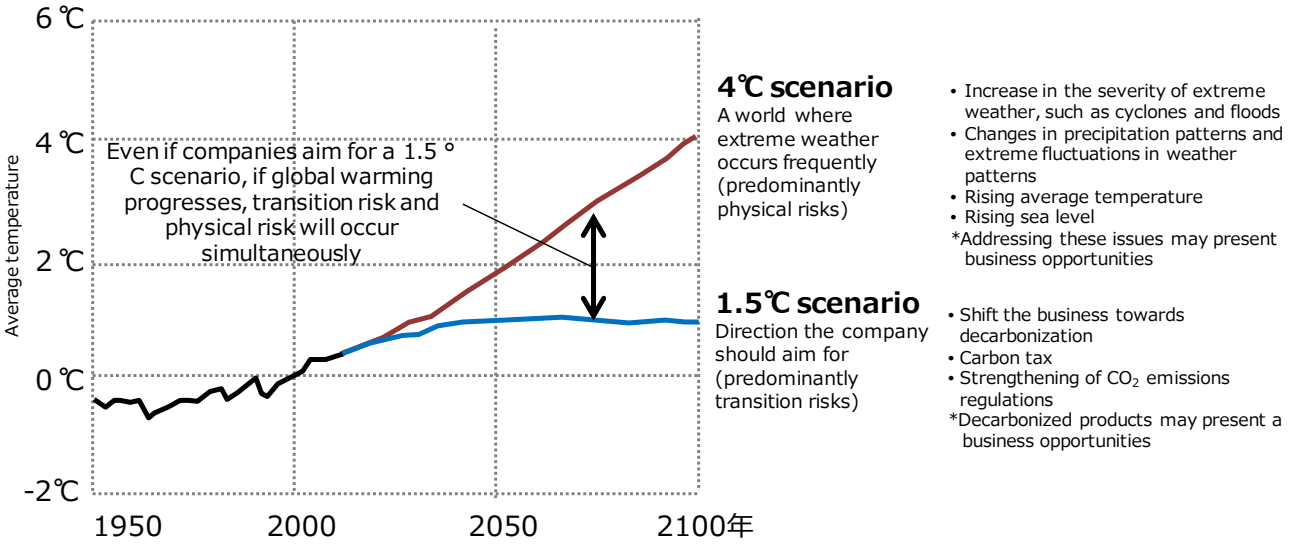
Climate change risks differ between a 1.5℃ or 2℃ temperature rise, and COP24, held in 2018, clearly stated that the global ambition should be set for 1.5 ℃. To reach this 1.5 ℃ goal, global greenhouse gas emissions must fall to net zero by 2050.

Appendix Table 1 Comparison of the effects of a 1.5℃ and 2℃ temperature rise

	1.5℃	2℃
Global population affected by heat waves (at least once every 5 years)	Approx. 14%	Approx. 37% (Approx. 1.7 billion increase)
Global population exposed to flooding (From 1976~2005)	2 times	2.7 times
Sea level rise by 2100 (Compared to 1986~2005)	26~77cm	10cm higher than 1.5℃. Up to 10 million people affected

Source: WWF Japan, based on Chapter 3 of the IPCC SR1.5 SPM

Under such conditions, the world is already



*Prepared by Sekisui House based on global average surface temperature changes from: (IPCC) *Climate Change 2013: The Physical Science Basis, Summary for Policymakers,* pg. 19.

*Prepared by Sekisui House based on global average surface temperature changes from: (IPCC) Climate Change

moving towards 1.5℃[ix]:

- European Union (November 2018): Adopted a strategic long-term vision for a climate neutral economy by 2050
- France (November 2018): Announced a 2050-carbon neutral target, development of renewable energy, shut downs of thermal coal-fired power plants, and delayed cutbacks to nuclear power
- United Kingdom (June 2019): Planned law on 2050 net zero greenhouse gas target
- Denmark, Sweden: Legislation to achieve carbon neutrality by 2050
- Finland: Target for carbon neutrality by 2035
- U.S.A. State of California and Hawaii: Target for carbon neutrality by 2045

The effects of global warming can already be felt in everyday life. Going forward, in addition to strengthening regulations in each country, consumer demand for decarbonized products may be more evident than ever.

Features of the Sekisui House Group ' s approach to climate change scenarios

Given these global changes, companies must shift their business towards decarbonization to achieve a 1.5 ℃ scenario. Under such circumstances, the risks posed would predominately relate to transition risks, as physical risks would be significantly less, when compared to a 4℃ scenario. However, even if companies aim for 1.5℃, global temperatures may still rise by 4℃. As such, the Sekisui House Group has deemed it necessary to prepare for both potential transition and physical risks. This is the core concept of the Sekisui House Group's climate change scenarios.

Reference Index: Recommended disclosures from the TCFD

Recommendations[x]	Recommended disclosures	Page /related information[xi]
Governance Disclose the organization's governance around climate-related risks and opportunities.	a) Describe the board's oversight of climate-related risks and opportunities	・SECTION 1. The Sekisui House Group's Climate Change Strategy > Climate-related governance (Page 6) ・Sustainability Report 2019 (Web version, PDF archive) >Promotion and policies regarding environmental management (Page 225) > (Page 462) Corporate Governance System (as of April 25, 2019) (Page 462) > Board of Directors (Page 463)
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	・SECTION 1. The Sekisui House Group's Climate Change Strategy > Climate-related governance (Page 6) ・Sustainability Report 2019 (Web version, PDF archive) > Top commitment (Page 8-9) > Promotion and policies regarding environmental management (Page 225) > Corporate Governance System (as of April 25, 2019) (Page 462) > CSR Committee, Risk Management Committee (Page 464) > CSR Committee and CSR Promotion System (Page 484-485)

Recommendations[x]	Recommended disclosures	Page /related information[xi]
Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	・Executive Summary (Page 3) Table 1: Climate-related risks and opportunities and potential financial impacts (Page 4) ・SECTION 2. Risks and opportunities in a 1.5℃ scenario > Key risk factors that may pose a high financial impact (Page 10) > (1) Opportunities for the Sekisui House Group (Page 10) > The detached housing business (Japan) (Page 10) > Rental housing business (Japan) (Page 11) > Remodeling business (Japan) (Page 12) > Real estate management fees business (Japan) (Page 12) > Overseas business (U.S. Australia, UK) (Page 12) > (2) Risks for the Sekisui House Group (Page 13) > Risk of a significant increase in the cost of carbon emissions (Page 13) > Other risks (Page 15) ・SECTION 3. Risks and Opportunities in a 4℃ Scenario > (1) Risks for the Sekisui House Group (Page 16) > Risk of strengthened policies and regulations (Page 16) > Risk of intensifying natural disasters (Page 16) > Risk of chronic extreme weather (sustained higher temperatures, rising sea levels) (Page 17) > (2) Opportunities for the Sekisui House Group (Page 17) > Overall housing business (Page 17) ・Sustainability Report 2019 (Web version, PDF archive) > Detached housing business strategy (Page 18) > Development Business> Business Strategy (Page 25-26) > Remodeling business strategy (Page 29) > Overseas Business Strategy (Page 32-36) > Risks and Opportunities (Page 39-40)

Recommendations[x]	Recommended disclosures	Page /related information[xi]
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	・Executive Summary (Page 3) > Table 1: Climate-related risks and opportunities and potential financial impacts (Page 4) ・SECTION 2. Risks and opportunities in a 1.5℃ scenario > Key risk factors that may pose a high financial impact (Page 10) > (1) Opportunities for the Sekisui House Group (Page 10) > The detached housing business (Japan) (Page 10) > Rental housing business (Japan) (Page 11) > Remodeling business (Japan) (Page 12) > Real estate management fees business (Japan) (Page 12) > Overseas business (U.S., Australia, UK) (Page 12) > (2) Risks for the Sekisui House Group (Page 13) > Risk of a significant increase in the cost of carbon emissions (Page 13) > Other risks (Page 15) ・SECTION 3. Risks and Opportunities in a 4℃ Scenario > (1) Risks for the Sekisui House Group (Page 16) > Risk of strengthened policies and regulations (Page 16) > Risk of intensifying natural disasters (Page 16) > Risk of chronic extreme weather (sustained higher temperatures, rising sea levels) (Page 17) > (2) Opportunities for the Sekisui House Group (Page 17) ・Sustainability Report 2019 (Web version, PDF archive) > Medium-Term Management Plan and ESG (Page 70)

Recommendations[x]	Recommended disclosures	Page /related information[xi]
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	・Executive Summary (Page 3) ・SECTION 1. The Sekisui House Group's Climate Change Strategy > Challenges in realizing the Sekisui House Group's goals (Page 8) > Leveraging scenario analysis (Page 9) > Demonstrating the resilience of the Sekisui House Group's strategy (Page 9) ・ SECTION 2. Risks and opportunities in a 1.5℃ scenario (Page 10) >Key risk factors that may pose a high financial impact (Page 10) ・Appendix: Approach to climate scenarios > About climate change (Page 20) > Features of the Sekisui House Group's approach to climate change scenarios (Page 21)
Risk management Disclose how the organization identifies, assesses, and manages climate-related risks	a) Describe the organization's processes for identifying and assessing climate-related risks.	・Sustainability Report 2019 (Web version, PDF archive) > Decarbonized Society> Participation to the COP24 (Page 93-94) > Promotion and policies regarding environmental management (Page 225) > CSR Committee, Risk Management Committee (Page 464) > CSR Committee and CSR Promotion System (Page 484-485) > Stakeholder Engagement> Activities with Governments and Industry Organizations to Improve Living Environment Quality (Page 498-499) > Comments from the CSR Committee and External Committee Members (Page 500)

Recommendations[x]	Recommended disclosures	Page /related information[xi]
	b) Describe the organization's processes for managing climate-related risks.	・Sustainability Report 2019 (Web version, PDF archive) > Promotion and policies regarding environmental management (Page 225) > Revised "CSR Procurement Guidelines" and implemented "CSR Evaluation" based on "CSR Procurement Standards" (Page 333) > CSR Committee, Risk Management Committee (Page 464) > CSR Committee and CSR Promotion System (Page 484-485)
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	・Sustainability Report 2019 (Web version, PDF archive) > Promotion and policies regarding environmental management (Page 225) > CSR Committee, Risk Management Committee (Page 464) > CSR Committee and CSR Promotion System (Page 484-485)
Metrics and targets Disclosure of metrics and targets used to assess and manage climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	・SECTION 1. The Sekisui House Group's Climate Change Strategy > Challenges in realizing the Sekisui House Group's goals (Page 8) ・Sustainability Report 2019 (Web version, PDF archive) > Net Zero Energy House Cumulative Building Orders (Page 15) > Non-Financial Data> CO_2 Emission Reduction Rate for Detached Houses (Compared to 1990) (%) (Page 55) > Decarbonized Society> Progress (Page 80-84, 87-92) > Decarbonized society> Spread and expansion of "Green First Zero" (Page 99,100) > Decarbonized Society> Promotion of Solar Power Generation System (Page 105) > Decarbonized society> Promoting the spread of Ene-Farm residential fuel cells (Page 107) > Decarbonized Society> Energy-Saving and Power-Saving Activities in the Group, Promotion of Eco-Safe Driving Using Telematics (Page 117-121) > "Eco First Promise" and Progress (Page 186) > Material balance (Page 192-194, 196, 197, 199-202,

Recommendations[x]	Recommended disclosures	Page /related information[xi]
		204-206) > Environmental Management> Environmental Accounting (Page 226-229) > Environmental Goals and Results (Page 240-242) > ESG data (Page 503-508, 511-513, 515) > Independent Third Party Assurance Report (Page 521)
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	・SECTION 2. Risks and opportunities in a 1.5℃ scenario (Page 10) > Risk of a significant increase in the cost of carbon emissions (Page 13) ・Sustainability Report 2019 (Web version, PDF archive) > Sustainability Vision 2050 (Page 66) > FY2018 Scope 1,2,3 CO_2 emissions (Page 194, 195, 201-203) > ESG data (Page 503-508, 514) > Independent Third Party Assurance Report (Page 521)
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	・Executive summary (Page 3) ・SECTION 1. The Sekisui House Group's Climate Change Strategy (Page 6) > Insights on climate change (Page 6) > Challenges in realizing the Sekisui House Group's goals (Page 8) ・Sustainability Report 2019 (Web version, PDF archive) > Sustainability Vision 2050 (Page 66) > Decarbonized Society> Aims, Action Policy (Page 77-79) > Decarbonized Society> Sekisui House Owner Denki Established to Achieve RE100 (Page 95,96) > Decarbonized society> Spread and expansion of “Green First Zero” (Page 97-100) > The “Eco First Promise” and Progress (Page 186) > Environmental Goals and Achievements (Page 240-242)

Reference index: SASB standards (only climate-related indicators)

SASB indicator code	Company name	Industry classification by SICS by Sustainable Industry Classification System (SICS)	Page/ related information
IF-HB-420a.1	Sekisui House, Ltd.	Infrastructure > Home Builders	(No disclosure information of the indicator) Related information ・SECTION 3. Risks and Opportunities in a 4℃ Scenario > Risk of intensifying natural disasters (Page 16)
IF-HB-420a.2	Sekisui House, Ltd.	Infrastructure > Home Builders	・Table 1: Climate-related risks and opportunities and potential financial impacts (Page 4) ・SECTION 1. The Sekisui House Group's Climate Change Strategy (Page 6-9) ・SECTION 2. Risks and opportunities in a 1.5℃ scenario (Page 10-15) ・SECTION 3. Risks and Opportunities in a 4℃ Scenario (Page 16-17)
IF-RE-450a.1	Sekisui House Reit, Inc.	Infrastructure > Real Estate	(No disclosure information of the indicator) Related information ・SECTION 3. Risks and Opportunities in a 4℃ Scenario > Risk of intensifying natural disasters (Page 16)
IF-RE-450a.2	Sekisui House Reit, Inc.	Infrastructure > Real Estate	・Table 1: Climate-related risks and opportunities and potential financial impacts (Page 4) ・SECTION 1. The Sekisui House Group's Climate Change Strategy (Page 6-9) ・SECTION 2. Risks and opportunities in a 1.5℃ scenario (Page 10-15) ・SECTION 3. Risks and Opportunities in a 4℃ Scenario (Page 16-17)

i : CO_2 emissions calculated based on the Green House Gas Protocol methodology. Scope 1 emissions refer to emissions from fuel used, Scope 2 emissions are emissions from purchased electricity and heat, and Scope 3 emissions are emissions from energy consumed outside of the Sekisui House Group, such as related businesses and building occupants (note, the SBT target only covers energy consumed by occupants).

ii : https://sciencebasedtargets.org/

iii : “Net Zero Energy Housing Support Project Survey Presentation 2019” document; Organizer: Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry; Executive organization: Sustainable open Innovation Initiative

iv : "Energy-saving and disaster-ready housing" received the 2005 Energy Conservation Grand Prize Chairman's Award.

v : US$100/t-$CO_2$ was set based on the IEA’s WEO "Sustainable Development Scenario" for 2030.

vi : Japan Center for Climate Change Actions (JCCCA), IPCC Fifth Assessment Report Special Page https://www.jccca.org/ipcc/ar5/wg2.html

vii : Research Institute of Innovation Technology for the Earth (RITE), Keigo Akimoto, Emission pathways for 2℃ targets and prospects for global emissions of NDCs, Innovative Environmental Technology Symposium 2017

viii : Global Warming of 1.5℃ an IPCC special report on the impacts of global warming of 1.5℃ above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty

ix : Masako Konishi, Expert Director (Conservation and Energy) WWF Japan, 4th Anniversary of Sekisui House Eco First Park Environmental Symposium on Climate Crisis 1.5℃ World, Japan and Business Movements, November 15 2019

x : The Japanese translation of the disclosure recommendations in the table is based on an individual translation of the Sustainability Forum Japan (October 2018).

xi : Please refer to the following address for Sustainability Report 2019 (Web version (Japanese version), PDF archive). https://www.sekisuihouse.co.jp/sustainable/download/index.html

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