



Question 1 – Where are we?

The commitment (planned and/or announced) as well as the actions taken so far that are in line with aims of Paris Agreement, the 1.5/2 degrees' goal and the transition towards a net-zero emission society by this mid-century [Maximum 300 words]

- In 2008, we were the first Eco First company in Japan to make a decarbonization declaration that aims “to achieve zero CO₂ emissions throughout the full housing lifecycle from production to disposal by 2050”. At the same time, we also aimed for the realization of a hydrogen society in order to increase the proportion of renewable energy here in Japan, where the differences among the four seasons are so prominent.
- From 2009, in order to realize our goal of creating a post-carbon society, we commenced sales of our environmentally friendly Green First houses, which achieved a 50%+ reduction in CO₂ emissions from 1990 levels. “Green First” means that the most important thing is caring for our global environment. In addition to PV systems, Green First homes also use fuel cells, which are one of the keys to the advent of the hydrogen society.
- On hearing of the Japanese government’s decision to “make ZEH the standard for new housing in Japan by 2020,” from 2013 we commenced sales of our Green First ZERO ZEH models.
- In 2015, on hearing that approximately 30% of global CO₂ emissions were from buildings, we joined the COP21 Global Alliance for Buildings and Construction with the aim of reducing building and construction-related CO₂ emissions. Of the 70 participating institutions from throughout the world, the only ones from Japan were the Tokyo Metropolitan Government and Sekisui House. We declared that we would take the initiative to reduce emissions in the household sector by 39.3%.
- In 2017 we joined RE100 and declared that we would source 100% of our electricity for business activities from renewable energy by 2040.
- In 2018, our goal of reducing CO₂ emissions from our business by 35% and CO₂ emissions from rental housing and detached houses by 45% by 2030 was certified by the SBT Initiative.

Progress made so far against the above commitments, including success stories, case studies and gaps [Maximum 300 words]

- In FY2017, ZEH accounted for 76% of newly built detached housing, with the total cumulative number exceeding 35,000 houses, making us the top seller of ZEHs in the world. Our ZEH mass construction was awarded second place in the Sustainable City Grand Prize Division of the Green Solutions Awards 2017.
- In February 2017, in Kanazawa we completed the first project in Japan where all rental units were ZEH.
- In 2019 we are scheduled to complete the first apartment building in Japan where all units will be ZEH.



- In 2016 we built the resilient, energy self-sufficient Higashi-Matsushima City Disaster-Ready Smart Eco-Town in Higashi-Matsushima City, Miyagi Prefecture, which had been especially hard hit by the tsunami from the Great East Japan Earthquake. This town has a micro-grid and supplies power generated by the PV system to the area rather than supplying it to the grid, meaning that even if the power network goes down, electricity can still be supplied as normal for a minimum of three days, and if the power is out for a longer period, then electricity could still be supplied at minimal levels on a continual basis.
- By 2017, we had installed a cumulative total of approximately 700 MW worth of PV systems on customers' homes.
- In 2015, we constructed Sekisui House Eco First Park as a facility to educate and increase social awareness about global warming prevention, ecosystem preservation and resource recycling. We are spreading the word about living a lifestyle that will prevent global warming, the creation of gardens with biodiversity, and the recycling of 100% of building and construction waste.

Quantitative impact so far with respect to mitigation, adaptation, resilience and/or finance [Maximum 300 words]

- The average CO₂ emissions of newly-built detached housing (including housing other than ZEH) provided in FY2017 were reduced by 41,681 t-CO₂/year over 1990 levels, achieving a reduction in CO₂ emissions of 83.6%.
- The annual CO₂ emission reduction from the 35,881 ZEH providing during the period from 2013 to 2017 is approximately 100,000 tons.
- Higashi-Matsushima City Disaster-Ready Smart Eco-Town achieves an annual reduction in CO₂ emissions of 307 t-CO₂/year.
- During the period from 2009 to January 2018, the number of houses sold with fuel cells was in excess of 48,000, making Sekisui House the world leader.
- In 2018, the cumulative number of visitors to Sekisui House Eco First Park broke the 10,000 mark.



Question 2 - Where do we want to go?

Vision of the future for your organization and/or sector in terms of its possible role in achieving the 1.5/2 degrees' goal and a net-zero emission world by this mid-century [Maximum 300 words]

At Sekisui House we believe that our mission is to make a better society, a better future and to provide our customers with a happy life. A happy life is based on health, comfort, safety and security, and these things cannot be achieved through housing alone, but require us to care for the global environment. Because housing has a long lifecycle, in order to achieve these goals it is necessary to ensure that newly-built housing has zero CO₂ emissions. In 2009 we commenced the sale of housing that reduced CO₂ emissions by 50% or more while allowing people to live in comfort. In 2013 we moved to ZEH and by 2017 our ZEH ratio had increased to 76%.

However, this represents only 8.3% of all newly-built homes in Japan in 2017, so in order to achieve the Paris Agreement's goal of limiting global warming to under 2° C, all newly built housing needs to be ZEH. Sekisui House wants to be the leader in this arena and increase the ZEH ratio in Japan as a whole. This means not only detached houses, so since 2017 we have been engaged in creating ZEH condominiums. Furthermore, we see the role of Sekisui House to create the ZEH market and promote the post-carbon society by making all houses ZEH. Although we are now also developing our business overseas, as of yet there are no ZEH outside of Japan, so in the future it is our aim to develop ZEH globally as well.

With regard to CO₂ emissions from offices and factories, together with our customers we plan to pursue decarbonization while employing roof-mounted PV systems, etc. We are also pursuing decarbonization throughout our entire supply chain to realize sustainable procurement.

Possible and potential new commitments and pledges of to achieve the 1.5/2 degrees' goal and a net-zero emission world by this mid-century [Maximum 300 words]

- At present, the ZEH ratio among newly-built houses in Japan is low, but this is due to problems such as a low degree of awareness regarding ZEH and the higher costs involved. Therefore, in addition to stressing the importance of dealing with climate change, we will increase awareness regarding ZEH and make ZEH the standard for all newly-built homes. The Japanese government has made it a goal to have half of all new housing built as ZEH by 2030.
- In the same way, there is hardly any ZEH rental housing on the market, awareness regarding ZEH is low, and even if there were people wanting to live in such housing it is currently not possible to grant them their wish. By creating a market for ZEH rental housing, increasing awareness, and increasing the stock of such housing, we intend to be able to grant the wishes of as many people as possible to live in ZEH.
- In terms of apartment buildings, such as condominiums, it is currently difficult to make ZEH high-rise apartment buildings due to the difficulty of installing PV systems. However, we plan to make this possible by developing ZEH technology that can be used on such buildings.



- Since Sekisui House was established in 1960, we have built more than 2,380,000 homes. Although we are already the global leader in terms of ZEH, ZEH still only accounts for about 1.5% of Sekisui House housing stock. We are therefore working to incorporate ZEH features in such existing homes in order to reduce related CO₂ emissions.
- We are also working to expand ZEH concepts to commercial facilities, such as hotels, which we believe will be an area of significant growth in the near future.

Foreseen positive impact of these commitments once they are realized, including contributions to the sustainable development agenda [Maximum 300 words]

- Currently, the Japanese government has made it a goal to have half of all new housing (420,000 homes) built as ZEH by 2030. However, there are 53.4 million homes in Japan, so even if they achieve this goal by 2050, it will still mean that ZEH will account for only 15–16% of the total number of homes. If, however, all new housing were to be built as ZEH by 2030, then approximately 20% of all homes would be ZEH by 2050.
- Although the number of ZEH condominiums is not increasing, 540,000 new condominiums will be built this year, so if the concept of building new condominiums as ZEH can be promoted then a major reduction in CO₂ emissions can be achieved because condominiums account for 30% of all homes in Japan.
- People wanting to live in ZEH rental housing will chose to do so if it is possible for them to find such ZEH by searching on the Internet, etc. As this happens there will be a ripple effect, which will further promote ZEH condominiums.
- It is not possible to reduce CO₂ emissions from all houses in Japan to zero by relying solely on new ZEH as described above. Renovation of existing homes to bring up them up to ZEH standards is required, and as an industry leader, Sekisui House will promote such renovation with a view to eliminating CO₂ emissions from the entire housing lifecycle by 2050.
- Following the phase-out of the FIT (feed-in tariff) system, in line with our commitment to RE100, we will create a platform whereby we purchase surplus power from our customers, and if this concept can be popularized throughout Japan, then it will encourage more companies to join RE100.
- In terms of housing construction, procuring materials from companies that are actively seeking to build a low carbon society in line with the UN's SDGs (carbon neutral procurement) minimizes Scope 3 emissions and promotes the transition to a low-carbon society among Japanese industry as a whole.



Question 3 - How do we get there?

Ways in which the UN Climate Change process can help you achieve your vision and goals, and how your actions can help in expediting sustainable transitions to climate neutral societies [Maximum 300 words]

- Sekisui House is the first Eco First enterprise to make the Decarbonization Declaration and proceed with efforts to support decarbonization, such as the promotion of ZEH. Although it is necessary to increase awareness regarding the importance of climate change countermeasures and create markets where products aimed at decarbonization can be marketed, the UN Climate Change process is helpful in making people aware of such market formation.
- The promotion of ZEH by government subsidy policies and requirements, etc., not only promotes the transition to a carbon-neutral society, but also supports the promotion of decarbonization businesses.

Concrete solutions that have been realized while implementing your commitments, including lessons learnt from success stories and challenges, and case studies that are in line with the 1.5/2 degrees' goal and can support the Parties in achieving their NDC goals, enable higher ambition and inspire engagement of other non-state actors [Maximum 300 words]

- One of the characteristics of Sekisui House is the fact that our global warming countermeasures and our business are one in the same. With global warming countermeasures such as the purchasing of emissions quotas, when business performance deteriorates then global warming countermeasures are [often] terminated. By contrast, with sales of ZEH, which is one of our industry's global warming countermeasures, if business performance deteriorates, then strengthening sales of ZEH to cope with the situation actually continues to promote the reduction of emissions. It is necessary to see global warming as a problem that should be acknowledged and dealt with as a business, rather than within the narrow scope of CSR.

Collaboration models with other stakeholders and, in particular, between non-Party stakeholders, national governments and the UN Climate Change process that have been successful in helping you, or can help you, achieve your commitments [Maximum 300 words]

- Recognized as a top runner in various business categories in the Eco First Program by the Minister of the Environment.
- Cooperation with low carbon businesses and enthusiastic policy proposals from enterprises as part of JCLP (Japan Climate Leaders' Partnership) activities.
- Member of RE100.
- Certified by the SBT Initiative.
- Participant in the Japan Climate Initiative, JCI.



Opportunities to further scale up action and means to address barriers that can enable even further action by non-Party stakeholders based on the actions you have taken to implement your commitments. (“We’ve made progress and have made new commitments as described above. This is what I need from national governments, other non-Party stakeholders and the UN Climate Change process to take even further action…”) [Maximum 200 words for each item below]:

- *Policy levers*

- Submission of policy proposals to promote the transition to ZEH by each company/organization.

- *Collaboration/cooperation opportunities*

- Japan Climate Leader's Partnership
- Ecofirst Promotion Council

- *Lessons learned based on the experience and progress so far*

- Not to treat climate change initiatives under the narrow scope of each company's CSR, but rather to see climate change as a problem that should be acknowledged and dealt with as a business.

- *Public and private financing models*

- We utilize the subsidies provided by ministries related to the promotion of ZEH (Ministry of Economy, Trade and Industry, Ministry of Land, Infrastructure, Transport and Tourism and the Ministry of the Environment).
 - Subsidies to support the promotion of investment in energy efficiency.
 - Initiatives to promote the transition to a low-carbon society, such as ZEH (detached houses, condominiums).
- The Higashi-Matsushima City Disaster-Ready Smart Eco-Town, which was subsidized by the Ministry of the Environment, was an Independent and Distributed Low Carbon Energy Society Creation Initiative conducted by the Low Carbon Society Promotion Association.