

Explanation of Value Creation Process

Housing Business

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Standardize carbon neutral design

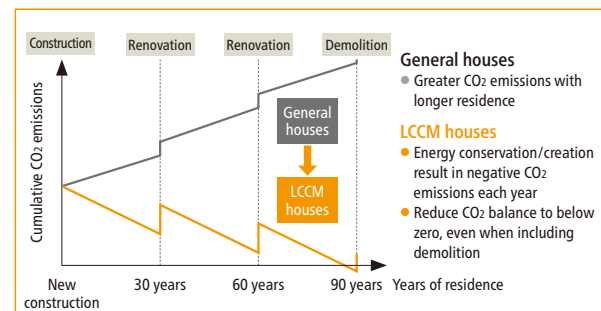


Since entering the custom-built detached housing business in Japan in 1975, the Sumitomo Forestry Group has been promoting long-life, high-quality wooden houses, thereby providing a good living environment. Currently, we are developing a wide range of businesses related to housing and lifestyles, such as rental housing, community development (spec homes), the greening business, and the renovation business, utilizing the design and technical capabilities cultivated in the detached custom-built housing business. The Group will contribute to the decarbonization of society by reducing CO₂ emissions in the area of living by promoting the use of its own Big-Frame Structure and the spread of ZEH (Net Zero Energy House), LCCM (Life Cycle Carbon Minus)^{*1} housing, and ZEB (Net Zero Energy Building). Going forward, we will continue to contribute to the realization of a sustainable society by expanding sales of environmentally friendly housing and promoting the standardization of decarbonized design.

*1 A house that reduces CO₂ emissions and generates renewable energy during construction, residence, and demolition, resulting in a negative CO₂ balance throughout the entire life cycle of the house, including at the time of construction.

LCCM housing: Able to reduce CO₂ emissions much more than ordinary houses

Our LCCM houses are made of wood, which reduces CO₂ emissions from raw material procurement to construction, and the structural frame is made of domestic timber that uses renewable biomass fuel for the drying process, making it possible to reduce CO₂ emissions even more. In addition, Big-Frame Structure is characterized by high variability that makes it easy to change the floor plan and renovate, and contributes to long-term carbon fixation by extending the life of the house.



Benefits of ZEH and Big-Frame Structure

	ZEH		ZEH and Big-Frame Structure		Benefits
Economical	Reduction of utilities costs	×	LS30 ^{*2} design reduces maintenance costs	=	● Able to live in the house for 10, 20 or 30 years at reduced cost
Health	Advanced insulating performance	×	Wood insulation is better than iron and wooden spaces are gentle on the mind and body	=	● Able to live a healthy life at a comfortable room temperature throughout the year
Disaster prevention	Solar power generation system	×	Earthquake resistance of shelter-class ^{*3} Securing water for daily use	=	● Sense of security that you can remain at home in the event of an emergency

*2 The exterior of the building is a highly weather-resistant "LS (Long Support) 30" specification that does not require maintenance for 30 years from the date of completion, preventing deterioration of the roof and exterior walls and reducing the time and cost required for maintenance.

*3 Seismic performance equivalent to that of disaster prevention bases (equivalent to seismic grade 3).

Global Construction and Real Estate Business

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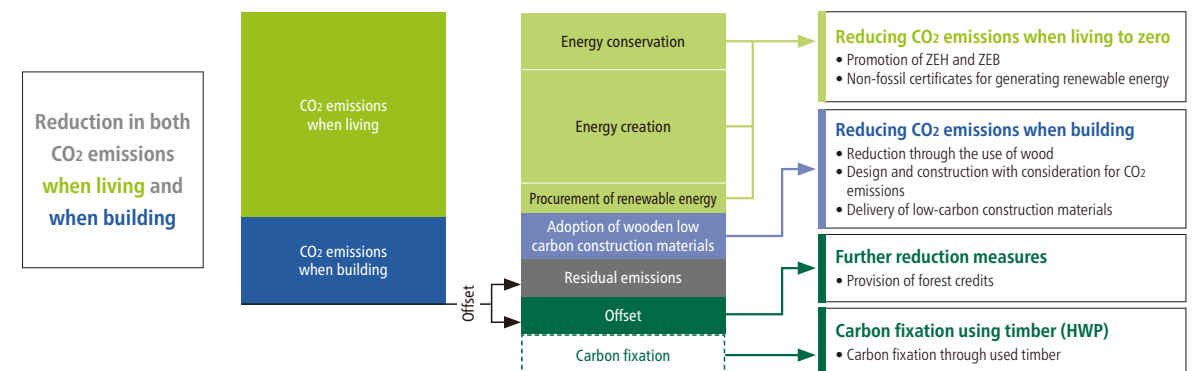


Since the Sumitomo Forestry Group began its Housing business in the United States in 2003, it has been actively pursuing new entry into promising growth markets. Currently, we are developing housing, construction, and real estate businesses in Australia and other parts of Asia. We value construction that suits the culture and climate of each region, and we are also working on the development of environmentally conscious housing overseas, such as a zero-emission house^{*4} in Australia and landed houses (single family homes) with solar panels as a standard feature in Indonesia. In addition, since wooden construction stores carbon absorbed by wood for a long time, we are developing medium- to large-scale wooden constructions, which are attracting increasing attention both in Japan and overseas. By widely disseminating high-quality wooden buildings globally, we are contributing to the realization of a decarbonized society.

*4 Environmentally friendly housing that can be expected to have an energy-saving effect of 70% or more compared to conventional housing.

Standardizing carbon neutral design: Helping to reduce CO₂ emissions across the construction industry

Global energy-based CO₂ emissions in 2021 totaled 36.3 billion tons^{*5}, of which 37% were in the construction sector, making decarbonization of the construction sector a top global issue. First, the Group will promote the reduction of CO₂ emissions generated during daily life, which account for 70% of the construction sector, by expanding the use of ZEH and ZEBs. In addition, as the world's building area is expected to double by 2060 due to the economic development of emerging countries, we will promote decarbonization at both the construction stage and in housing and operation by focusing on the development and diffusion of LCCM housing. Due to the economic development of emerging countries, there will be an increasing emphasis on reducing CO₂ emissions when building in the future. As the sole distributor in Japan for One Click LCA, a software that calculates CO₂ emissions at the time of construction, we have started a calculation contract business and promoted the acquisition of the EPD environmental certification label to support the decarbonization of the construction industry as a whole.



*5 Source: Global Alliance for Buildings and Construction (2022)