

Living Together, Creating Together, Growing Together

SCROLL

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In recent years, companies have come under increasing pressure from consumers and society to help ensure a sustainable future. In the past, many found it difficult to reconcile efforts to protect the environment with the need to achieve profitability. But Daiwa House Industry Co., Ltd. has shown that it can be done and has proven that sustainability can be good for business.

Daiwa House Industry is Japan's largest general housing manufacturer and real estate developer, anticipating sales of 4 trillion yen in fiscal 2020. On the way to achieving this goal, it has pursued environmental sustainability by refining the technologies it uses to build more energy-efficient houses, buildings and towns.

Carbon neutrality is a goal shared by the entire world, and the environmentally conservative technologies developed by Daiwa House Industry and other Japanese companies have received global attention for their effectiveness. In addition, Japanese companies have a proven track record of working closely with local communities to overcome a variety of difficult challenges.



Daiwa House Industry is making steady progress toward the goal of meeting all of its electricity needs from renewable energy sources. (Photo: Nara Factory)



Daiwa House Industry is working to develop more compact and affordable net-zero energy building (ZEB) power supply systems for use overseas and in regions with weak electricity grid infrastructure.

Net-zero energy houses, buildings and towns

Net-zero energy houses (ZEH) are designed to produce as much energy as they consume. To expand its business in this area, Daiwa House Industry developed smart homes that achieve net-zero energy balance with a combination of solar photovoltaic power and lithium-ion battery storage, aided by a proprietary Home Energy Management System that provides fully optimized energy consumption control.

Daiwa House Industry is also applying the same technology on a larger scale to net-zero energy buildings (ZEB). In 2018, it completed the Daiwa House Saga Building—Japan's first energy self-sufficient office building—in a pilot project to demonstrate the feasibility of operating buildings on solar power alone, independent of the local power grid. This resilient facility utilizes solar power generation and lithium-ion storage batteries, as well as state-of-the-art environmental equipment such as an air conditioning system that uses groundwater and solar heat to help save energy.

The technologies developed for single-family houses and commercial buildings are also being applied to large-scale urban development projects, and the company has already created net-zero energy towns (ZET) in four locations across Japan. At SMA Eco Town Harumidai, completed in 2013, all units are equipped with Home Energy Management Systems, and a specially developed SMA x ECO Cloud is used to visualize and optimize energy consumption to ensure net-zero energy use across the entire town.

Has your interest in ZEH, ZEB, ZET and other environmentally friendly construction and urban development technologies been stimulated by this article?

YES NO



Daiwa House Industry is actively developing renewable energy power generation facilities on vacant land owned by the company or local governments, and as of 2020, had already generated 418 MW of electricity at such sites. (Photo: Mega-Solar Project, Tsu City, Mie Prefecture)



A net-zero energy town (ZET), where all homes are equipped with solar photovoltaic power units with lithium ion storage batteries and where a state-of-the-art energy management system is used to ensure net-zero energy consumption across the entire town. (Photo: SMA Eco Town Harumidai)

Future towns emerging in the suburbs

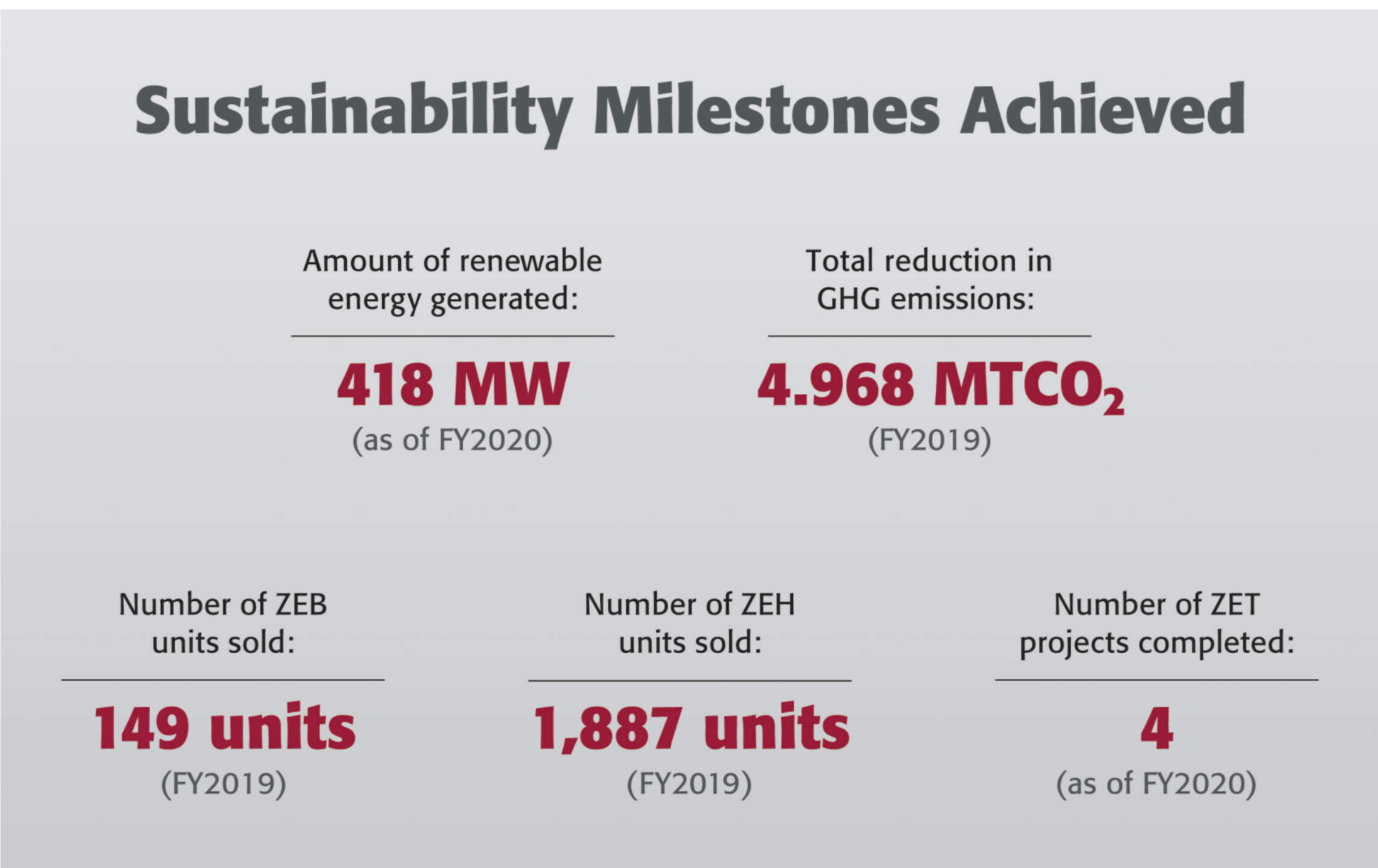
In recent years, Japan has begun to look at regional and suburban sites for the construction of logistics centers, data centers and other facilities.

Would you like to know more about Daiwa House Industry's efforts to realize a carbon-neutral society?

YES NO

In response to this trend, Daiwa House Industry is promoting low environmental impact development in rural and suburban areas based on a new "Ko 'Re' Kara City" concept. The 'Re' element in the project name stands for "Reality, Renewable Energy and Resilience," and reflects the many technologies the company has developed for sustainable urban

development, as well as the fact that energy self-sufficient homes can not only accelerate the development of carbon-neutral towns but can also make those towns more resilient to natural disasters. With the COVID-19 pandemic dramatically changing the way people live and work, the company believes that this type of project will play an increasingly important role in the future.



Daiwa House Industry believes there is no time like the present to promote new low environmental impact lifestyles. In FY2016, it formulated a long-term environmental vision, called Challenge ZERO 2055, and became the first company in the global housing and construction industry to participate in four major international initiatives. Particularly noteworthy are the EP100 (Energy Productivity) and RE100 (Renewable Electricity) initiatives proposed by the Climate Group, an international NGO that promotes decarbonization to help achieve the goals of the Paris Agreement on climate change. The EP100 initiative aims to double the energy efficiency of companies through technological improvements, while the RE100 initiative seeks to ensure that 100% of electricity is produced from renewable energy sources.

In line with these goals, Daiwa House Industry is continuing to develop energy-saving technologies to help achieve carbon neutrality and, at the same time, it is working to meet more of its own energy needs with power from renewable sources. Currently, the company obtains approximately 418 megawatts of electricity from solar, wind and hydro power at 372 locations across Japan, and it has drawn up a roadmap that will allow it to obtain all of its electricity from renewable sources by 2040.

With increased investment in environmentally friendly technologies, Daiwa House Industry has stated that it intends to grow its business to 10 trillion yen by 2055 when it will celebrate the 100th anniversary of the company's founding. It has also pledged to protect the environment and fulfill its responsibility to society on a scale commensurate with its global reach, and to work with partners everywhere to create a better world.

Did you become interested in Daiwa House Industry after reading this article?

YES NO

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