

# Making Housing More Sustainable

At first glance, the house in Tokyo's northeastern Adachi Ward looks completely ordinary: it is just another home in an area of relatively new residences. On closer inspection, however, it reveals a few secrets: solar panels on the roof, insulated walls, airtight construction, and all electrical appliances. This kind of house is called a "Tokyo Zero Emission House," an energy-saving house that meets the Tokyo Metropolitan Government's own requirements, incorporating high levels of insulation and energy-saving equipment. As approximately 30 percent of the city's CO<sub>2</sub> emissions come from the residential sector, the spread of these houses is exactly what is needed to promote Tokyo's climate change countermeasure target of virtually zero CO<sub>2</sub> emissions by 2050, and the naming of the house reflects this intention.



Energy generated by the solar power system covers about half of the family's electricity costs.

Ishida Yoshinobu moved into the house in October 2020 with his wife and two young children. When he was thinking of building a new house, the environment was not foremost in his mind. Nevertheless, the building company took them to some showrooms, where they realized the advantages of a highly airtight and insulated house and decided that if they were going to spend money on a new home, they would build an energy-efficient one.

"We used to live in an apartment, but after we moved to our new house, we immediately noticed that the temperature inside and outside was completely

different," says Ishida, noting there is only one air conditioner in the house but the family also uses fans.

Ishida points to a display on a wireless device that tracks the amount of energy generated by his home's solar panels and how much is sold to the local utility company. It indicates that the monthly costs are about

Tokyo is fighting climate change by promoting "Tokyo Zero Emission House."

by Tim Hornyak

13,000 yen to 14,000 yen, of which about 9,000 yen is covered by solar power generation. That represents a significant saving compared to Ishida's previous residence. He says he has become more conscious of reducing waste in his life, not only in terms of electricity bills, but also in terms of his home as a place to live.

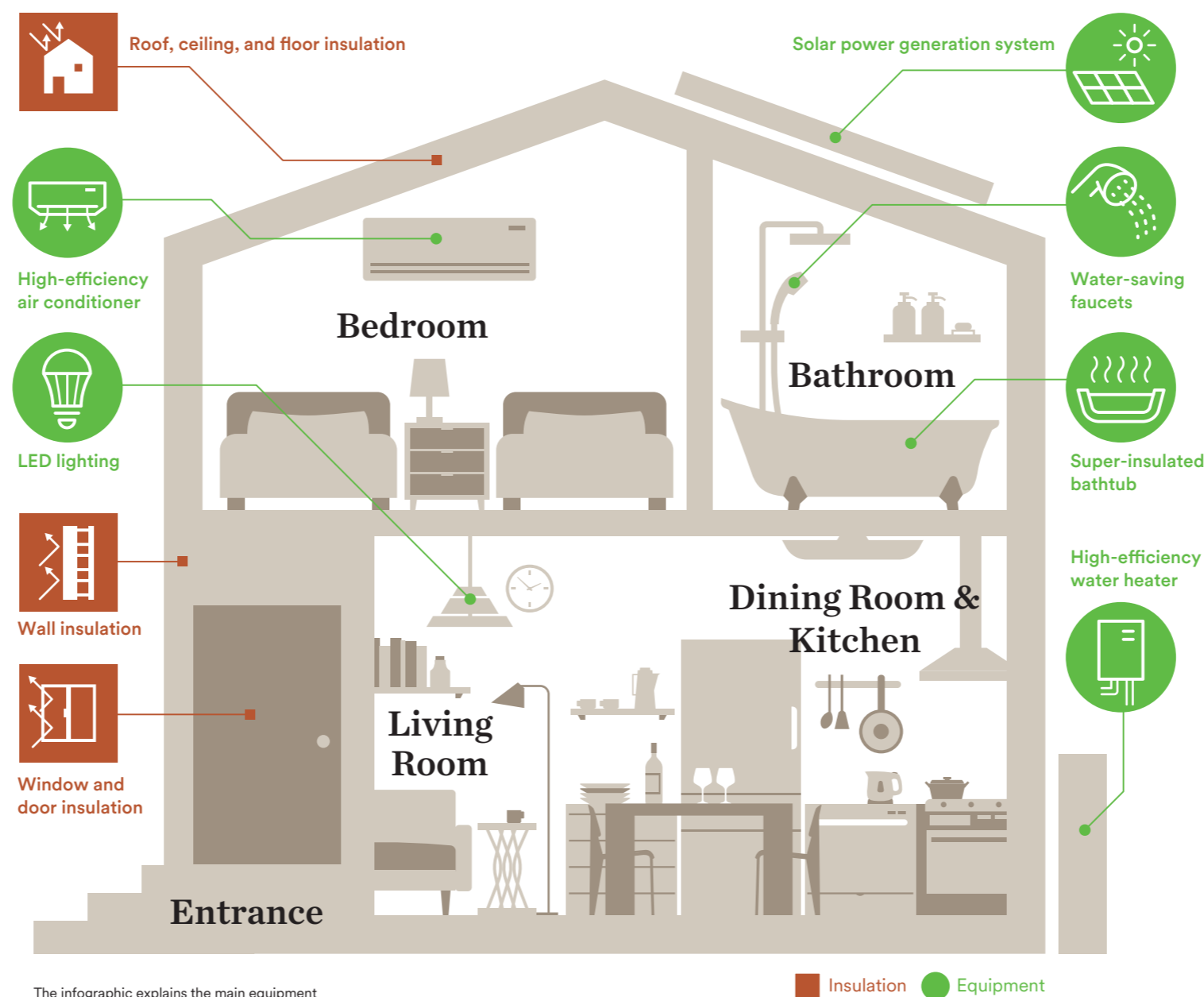


The Ishida family is very happy with the comfort of their new home.

The Tokyo Metropolitan Government (TMG) has announced it will aim at halving greenhouse gas emissions by 2030 from levels in 2000. The TMG is not only responding to the climate crisis, but is also strengthening and accelerating energy-saving initiatives from the perspective of securing energy stability in the medium to long term. They have launched a campaign calling for saving, generating, and storing electricity, and are promoting concerted efforts by both residents and businesses. From April 2025, it will be obligatory by ordinance for major housing suppliers to install solar panels on new houses and other buildings in Tokyo.

Kiyobishi Kensetsu Co. is a construction company based in Adachi Ward. It recommends the "Tokyo Zero Emission House" to all customers making inquiries about new home projects, and has built six over the past three years including Ishida's home. According to architect Takahashi Toshiyuki, representative director and president of Kiyobishi, "Customers have become more interested, especially this year, as the TMG has been more generous in providing subsidies, with a maximum of 2.1 million yen for qualifying custom-built houses." Although the "Tokyo Zero Emission House" is built to be airtight, that does not mean that they need to be kept closed at all times, Takahashi points out. He encourages customers to let fresh breezes in when the weather is good.

"It's not perfect, but it is satisfying," Ishida says of his house. "We also want to get closer to real 'zero emissions' in the future by also using the electricity we store in an electric vehicle eventually. While it is true that the 'Tokyo Zero Emission House' is costly to build, I think we should increase them in the future."



The infographic explains the main equipment of the "Tokyo Zero Emission House."

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