The Benefits of Solar Power

Cost saving

Can reduce utility bills

- ✓ Savings of about 7,800 yen/month, 93,600 yen/year*
  ⇒The system installation cost of about 980,000 yen can be recouped in about 6 years under the currently available grant of 100,000 yen /kW.

*Savings figures are based on a scenario where a single-family home with an average monthly electricity bill of around 10,000 yen installs a 4kW solar PV system

Disaster preparedness

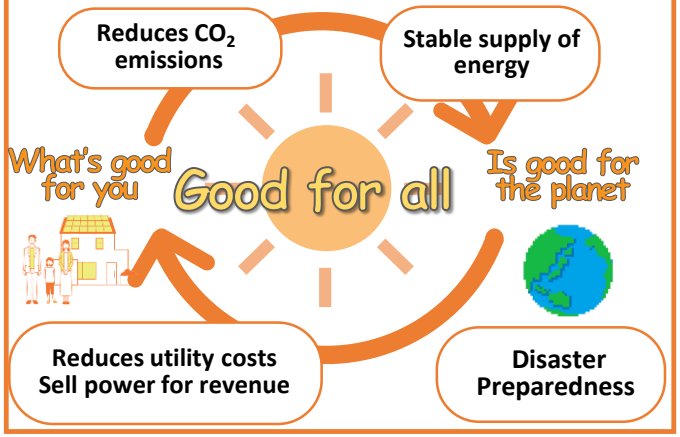
Electricity can be used during power outages

- ✓ Even during power outages you can collect information and check the safety of others using your TV, smartphone or other devices.
- ✓ Disaster preparedness can be enhanced by adding a storage battery.

Decarbon-ization

Reduce carbon emissions

- ✓ The amount of CO_2 reduced through generating 4kW of solar power is equivalent to the amount of CO_2 absorbed by a 2,000m² cedar forest (about 200 trees).
- ✓ Contributes to energy self-sufficiency.



The Situation Abroad

European Solar Rooftops Initiatives

- ✓ In May 2022, the EU released details on RE Power EU, a plan to end dependence on Russian energy.
- ✓ European Solar Rooftops Initiative: A phased-in legal obligation to install solar panels on public, commercial, and new residential buildings by 2029.

Germany

- ✓ States are introducing solar PV mandates (Currently, 7 out of 16 states)
- ✓ Berlin will make the installation of solar PV systems in houses mandatory from January 1, 2023.

California, U.S.A.

- ✓ 2020: Solar PV mandate for all new low-rise residential buildings in the state. (With the exemption of houses without sufficient sun exposure or roof space)
- ✓ 2023: this will apply to nearly all new non-residential buildings as well as multi-family housing.

New York City, U.S.A.

- ✓ The goal: 70% of state electricity to come from renewable sources by 2030
- ✓ 2019: solar PV/ green roof mandate, for new buildings and roof renovations

January 2023
Urban Sustainability Planning Section, Climate Change Countermeasures Division, Bureau of Environment, Tokyo Metropolitan Government

Solar Power Generation Equipment

Quick Guide

Answering your questions and concerns regarding the mandatory installation of solar power generation for residential buildings.

For details, visit the Tokyo Solar Portal

Tokyo Solar Portal

東京都 HTT TokyoTokyo

Q Why mandate solar power installation now?

A.

- ✓ **There are increasing concerns regarding the ongoing climate crisis and prolonged impact of the energy crisis** which are having a significant impact on both Tokyo residents and businesses.

【Heavy Rain】

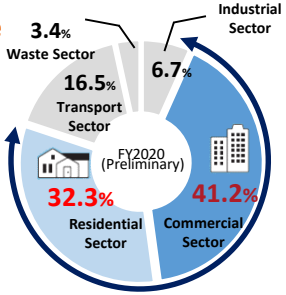
Source：GIA Japan

【Wildfires】

Source：U.S. Forest Service

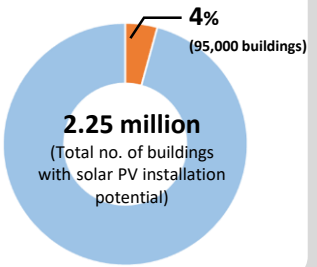
- ✓ **Buildings account for 70% of the city's CO_2 emissions.**
- ✓ By 2050, about **half of the city's buildings are expected to be replaced** by newly constructed buildings.

Tokyo's CO_2 emissions by sectors



- ✓ Currently **the amount of solar power generation equipment installed on residential rooftops is limited**.
- ✓ it is important to **optimize available rooftop space in Tokyo.**

Percentage of buildings with solar power generation equipment installed in Tokyo



Q Who is obligated to install the solar power generation equipment?

A. **Major housing suppliers** that supply over 20,000 ㎡ of housing on a yearly basis (approx. 50 companies) will be subject to this mandate. New buildings are subject; existing buildings are exempt. This is a system in which **housing suppliers and homeowners/buyers work together** to improve the environmental performance of buildings.

Q What does this mandate mean for custom-built home owners, purchasers of built-for-sale homes, etc. ?

A.

Custom-built home owners, etc※1

The owner will listen to the explanation by the supplier*2, and **will make a decision on the order from the position of striving to reduce environmental impacts by taking necessary measures.**

Purchasers of built-for-sale housing, etc. ※3

The prospective purchaser/renter will listen to the explanation by the supplier, deepen understanding of environmental performance, etc., and **will make a decision on the purchase/lease after giving thought to the transaction from the perspective of striving to reduce environmental impacts.**

※1 Custom-built home owners and rental home owners
※2 Home builders and developers etc.
※3 Buyers of built-for-sale housing and renters of rental housing

Q What kind of maintenance does solar power generation equipment require?

A. In a typical residential district, **it is not necessary to regularly climb upon the roof to clean the panels**. However, it is recommended that you check the amount of electricity generated daily.

Q Can hail damage the glass of the solar power generation equipment?

A. The glass surface of solar power generation equipment is generally made of tempered glass that conforms to Japanese Industrial Standards and **can withstand normal hailstones.**

Q Can fire on solar power generation equipment be extinguished?

A. **It can be safely extinguished.**
Firefighters take safety measures to extinguish solar power generation equipment fires using water.

Q Can solar panels be recycled?

A. **Yes, they can be recycled.**
There are several recycling facilities in the metropolitan area.

Q Is there a way to keep initial installation costs down?

A There are services with zero initial fees, such as leasing services. The Tokyo Government is also looking into enhancing measures for support.

Q When does this new system take effect?

A **The mandate will go into effect in April 2025, after a two-year preparation and public notification period.** (The ordinance was passed and enacted at the December 2022 Tokyo Metropolitan Assembly)