

Toward a Sustainable Recycling System for End-of-Life Solar Panels

“From Eco-Solution to Eco-Destruction.”

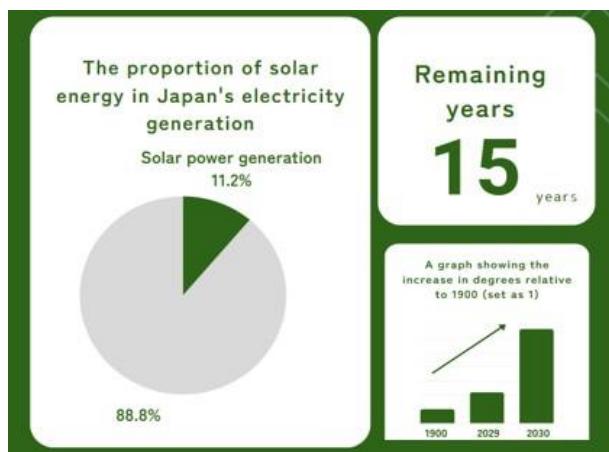
Tokyo Metropolitan Minamitama secondary education school

background

- Climate change is speeding up, bringing
- By 2040, a massive wave of discarded panels will arrive.
We are running out of time..



The current situation



- The disposal of solar panels installed under the FIT program will increase significantly starting in the 2040s.
- Solar power generation will become a major source of electricity in the future.
- The situation regarding the disposal and recycling of PV (photovoltaic) modules varies significantly by region. Therefore, Japan—which adopted solar power early and faced these issues sooner—should establish a model system to resolve this situation promptly.
- Japan is no exception, as the rise in sea levels and record-high ocean temperatures are causing typhoons to become larger, increasing the occurrence of linear rainbands, and leading to more midsummer and extremely hot days.

Ideal Business Plan for Used Solar Panels



Recycling Business
Certification System



International exchange and
export business, subsidies,
and system development.

EPR



System recognition.



Pre-collection of
recycling fees

- Introduction of the EPR system
(Extended Producer Responsibility)
- Adopt a “deposit system” that collects recycling costs in advance.
- Refund part of the deposit as an incentive when recycling is completed.



Establishment of a Sustainable Recycling System

EPR system × FIT system

2027 survey on support
status in each prefecture
completed

2032 Technical Support,
Confirmation of Certified
Excellent Companies

2036 Feedback +
Problem Solving

2040 General
operation. A model
for the world.

2030 Establishment of a
Subsidy System

2034 Trial operation

2038 Second trial operation