ZEB Promotion Activities and Introduction of Japanese Technology

Japanese Business Alliance for Smart Energy Worldwide
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JASE-W(Japanese Business Alliance for Smart Energy Worldwide)

JASE-World = government × Private companies

経済産業省 Ministry of Economy, Trade and Industry

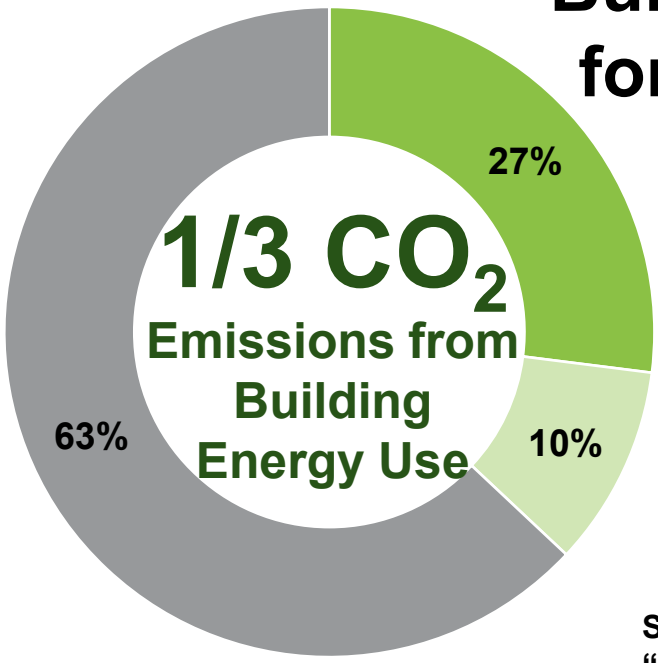
Keidanren Japan Business Federation

ZEB is the one of main activities for JASE-W

- JASE-W was established in October 2008.
- Promoting Japanese decarbonization technologies and products
- The public and private sectors have been working together
- Conducting forums, exhibitions, and surveys, and analyses.

Importance of ZEB for Achieving CN City

Scaling ZEB is critical to achieving carbon neutrality by 2050



Buildings account for approx.1/3 of global CO2 emissions

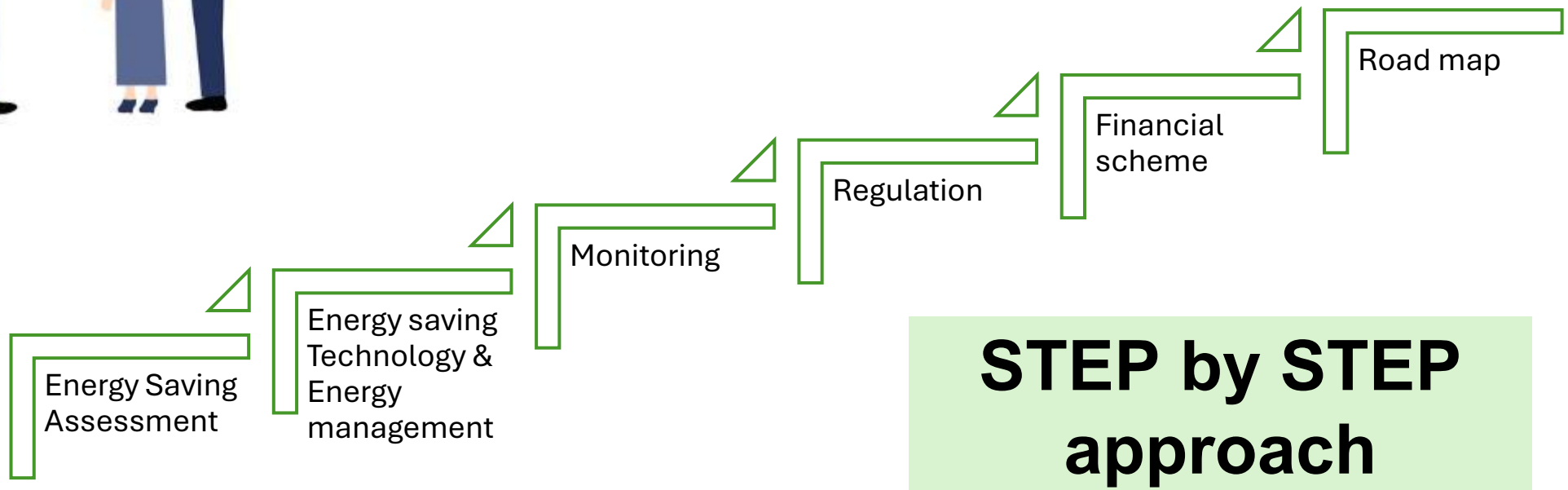
Source: IEA 2023 Adapted from "Tracking Clean Energy Progress"

Message from JASE-W

Many challenges exist, but ZEB is achievable

JASE-W, as a solution provider

proposes collaboration with partners



STEP by STEP approach

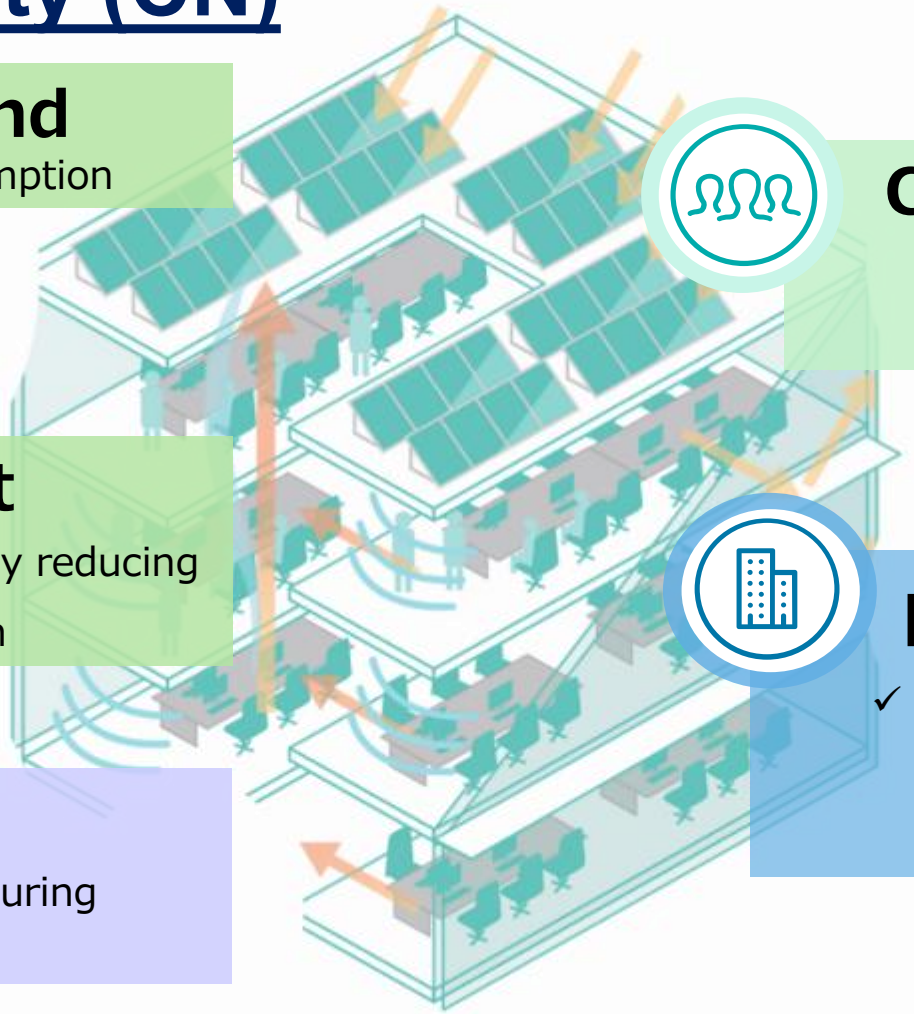
The Multifaceted Benefits of ZEB

ZEB addresses many important social issues beyond Carbon Neutrality (CN)

Energy demand
✓ Reducing overall consumption

Energy Cost
✓ Lower utility costs by reducing energy consumption

Resilience
✓ “Emergency Hub” during disaster/grid failure



Citizen’s Well-being
✓ Healthier, more productive environment for citizens

Real Estate Value
✓ Attract ESG-conscious tenants/investors and increase real estate value

The Challenges of ZEB

JASE-W provides solutions through a step-by-step approach to problem-solving

Diagnosis
Can energy consumption be accurately diagnosed?

Technology
Is the technology required to achieve ZEB readily available?

Integrated solutions
Achieving ZEB with a single technology is difficult, but what approach should be taken to develop integrated solutions?

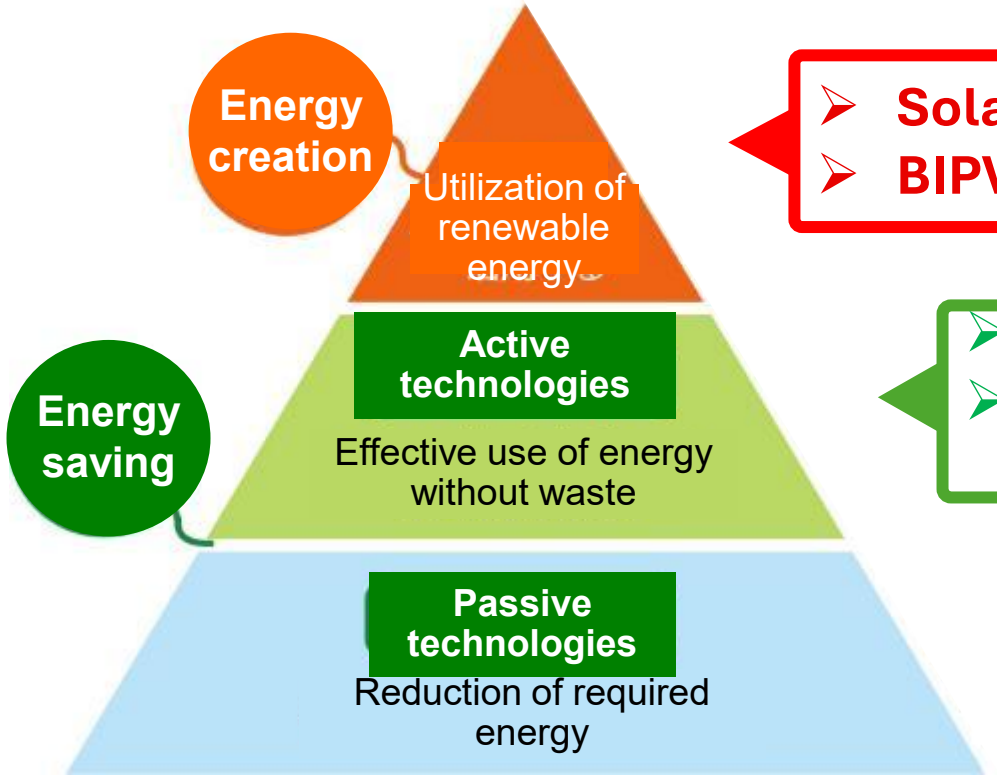
ZEB Approach
Is it possible to achieve net-zero
In a single step?

Regulation
What regulations need to be established to promote ZEB?

Beyond new construction
How should we approach ZEB for existing buildings?

Technologies required to achieve ZEB

- **Enhanced building envelope performance through better insulation**
- **Introduction of efficient equipment**
- **Implementation of renewable energy technologies**



- **Solar**
- **BIPV** (Building Integrated Photovoltaic)

- **LED lighting**
- **Downsized air conditioning system**

- **Retrofitting of windows (Low-E Glass)**
- **Enhancement of thermal insulation**

Energy Management System

Source: ZEB web portal of MOE

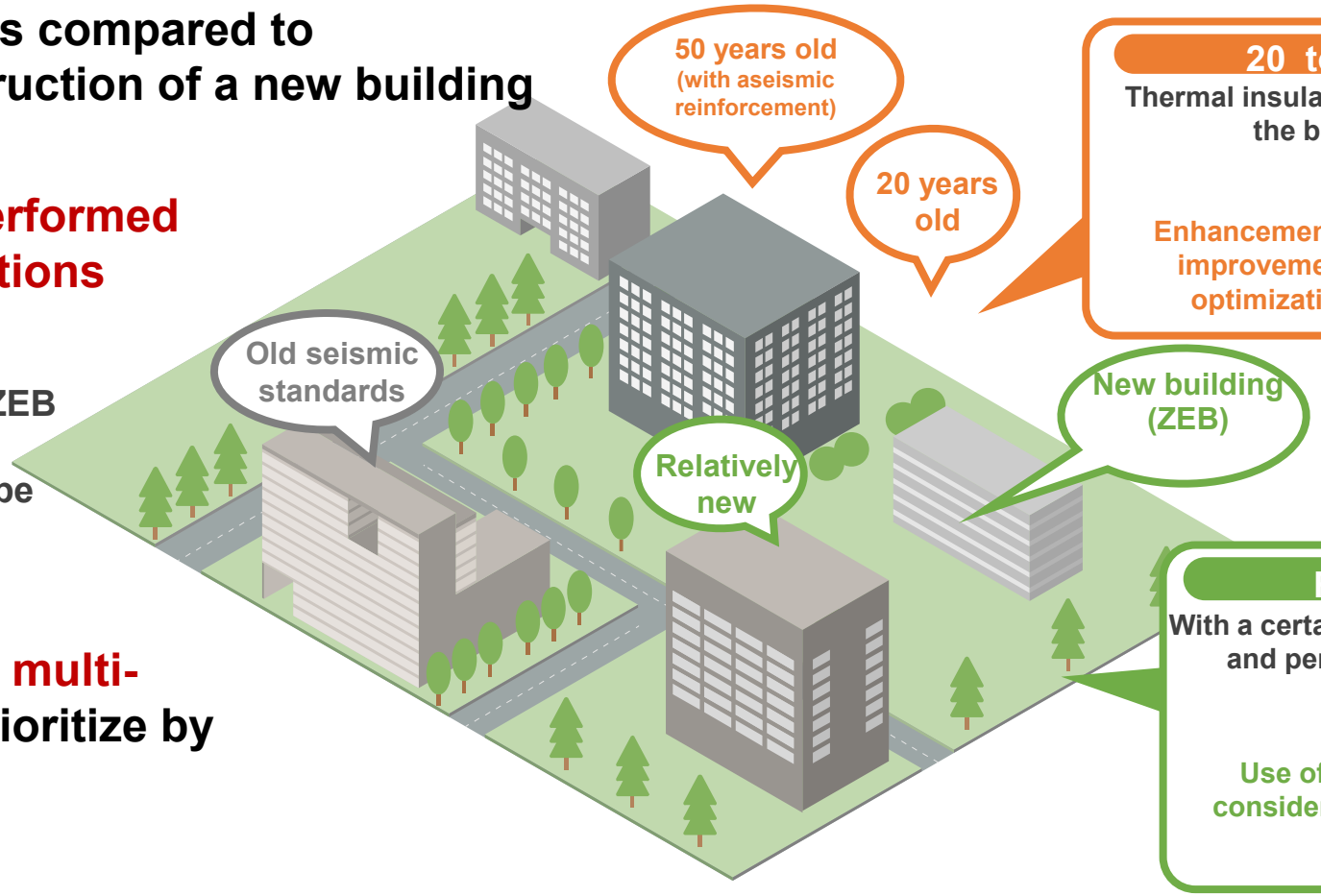
Introducing Green Renewable ZEB

Promoting ZEB renovations offers numerous benefits

- ✓ **Less CO_2 emissions as compared to demolition and construction of a new building**
- ✓ **Renovation can be performed while business operations continue**

"Aseismic reinforcement" & ZEB
or
"new building ZEB" should be considered

- ✓ **Proposal for efficient multi-building renewals, prioritize by performance**



20 to 40 year-old bldgs.
Thermal insulation efficiency and performance of the building envelope are low.

↓

Enhancement of thermal insulation efficiency, improvement of window performance, and optimization of air conditioning capacity

Relatively new bldgs.
With a certain level of thermal insulation efficiency and performance of the building envelope

↓

Use of a downsized system should be considered for the next replacement of air conditioning facilities.

ZEB Workshop Held in Hanoi, Vietnam

January 7- 10 2025

- Lecture to the National University of Civil Engineering (HUCE) in Vietnam on Japanese ZEB evaluation methods, to support local regulatory development.
- Visit Hanoi to identify potential properties and assessing feasibility for demonstration experiments

ZEB Workshop in Brunei

August 25-29 2025

- Conducting a ZEB diagnosis of the government office building (Ministry of Development MOD Building)
- Holding discussions with Brunei government officials to develop the MOD Building ZEB

建物の外観　中央右寄りに大型のガラスファサード（吹き抜け）を配置。左側のポツ窓部が執務室エリア

ZEB Workshop in Indonesia

July 23 2025

- Co-hosted a ZEB workshop/seminar in Jakarta, over 120 attendees.

Ministry of Energy and Mineral Resources (MEMR)

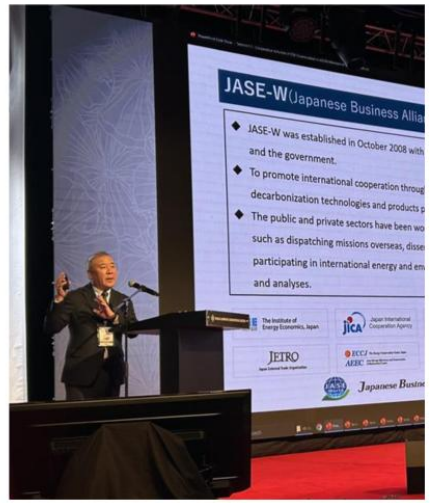
Green Building Office / Ministry of Public Works and Housing

Jakarta City Urban Planning Department

CEFIA in Malaysia

October 15-17 2025

- ZEB technology presentation at “Cleaner Energy Future Initiative for ASEAN”
- ZEB presentation as a CEFIA flagship project



ZEB Workshop at Bangkok

January 27 2026

Yokohama -Bangkok City to-City Project

For about 100 BMA construction-related staff

Opening remarks by Bangkok Governor Chadchart

ZEB Workshop in Malaysia

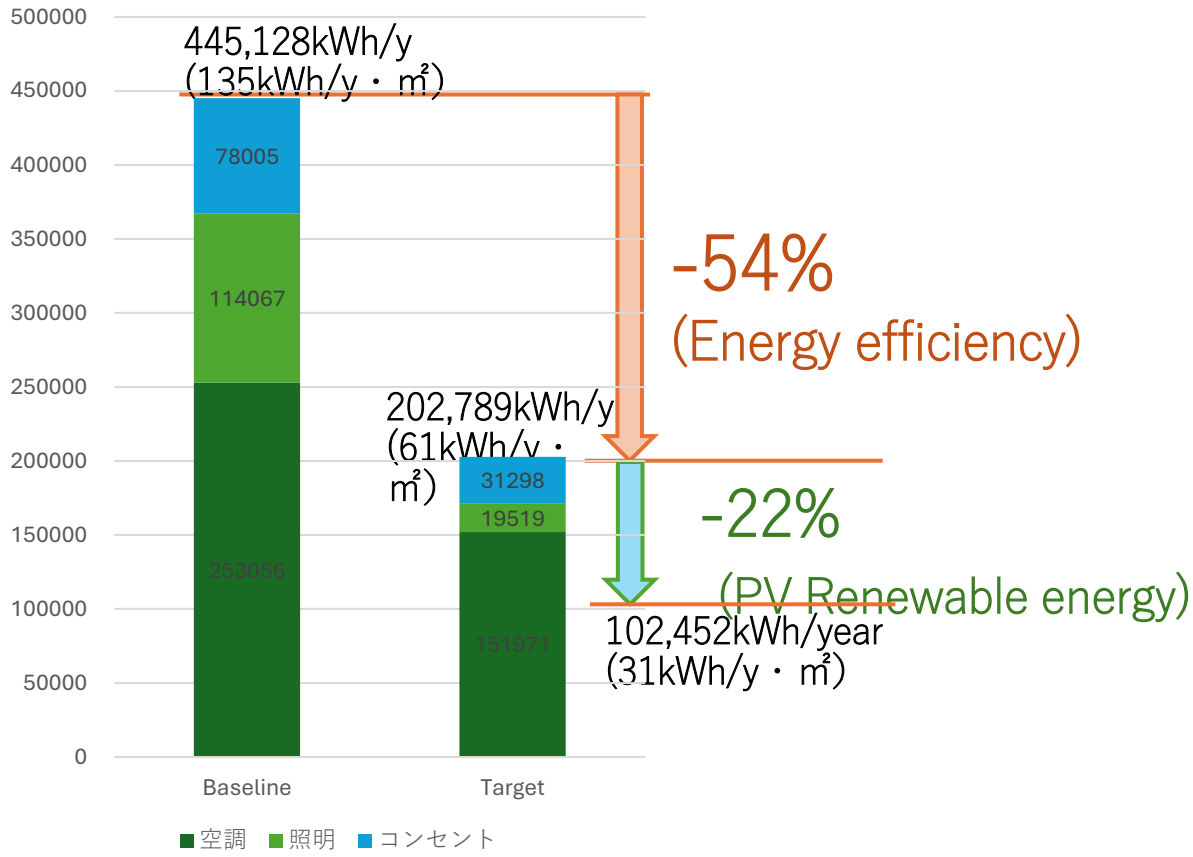
February 5 2026

- In collaboration with SEDA (Sustainable Energy Development Agency Malaysia),
- The aim was to promote the dissemination of SEDA's ZEB adoption policy to local governments.

Collaboration with Sustainable Energy Development Authority ,Malaysia (SEDA)

Cyberjaya, Malaysia
4-story building, Office

Implemented as a NEDO project
Target: Nearly ZEB/net ZEB
Retrofit ZEB project
Partner: SEDA Malaysia



Proposal

Experience ZEB through a Demonstrate Project

Expertise of JASE-W's member companies

Japanese government backup (METI)

JASE-W` s function

Capacity Buildings/ Information Sharing/ Project Formulations

We formulating a demonstrate project

- ✓ **Energy-Saving diagnosis**
- ✓ **Demonstration Projects**

THANK YOU !

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https://www.jase-we.org/

The Energy Conservation Center, Japan