

Best practices and lessons learned from Japan's NMA

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Japan's NMA (1): Mitigation and Clean energy

Cleaner Energy Future Initiative for ASEAN

- Launched at the 16th ASEAN+3 Energy Ministerials in September, 2019
- A Public and Private initiative for accelerating the deployment of cleaner energy and decarbonization technologies, contributing to Just Energy transition and decarbonization in the ASEAN region
- Provide Capacity building support through Flagship projects
- Share activities and discuss at the CEFIA Government-Private Forum



3 key pillars



Decarbonizing Technologies (energy efficiency, renewables, etc.)



Institutional Arrangements (policy framework, standardization, etc.)

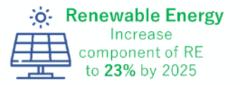


Finance

(SDGs, ESG, local financial institutions, etc.)

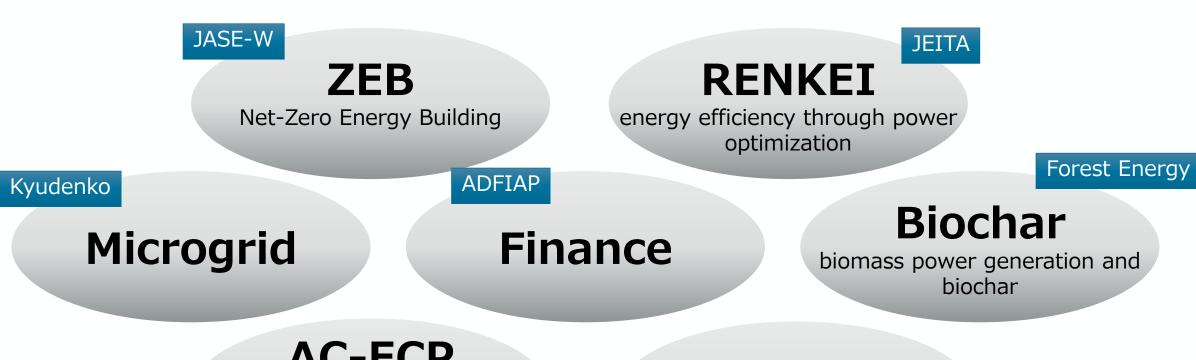
✓ Contribute to APAEC (ASEAN Plans of Action for Energy Cooperation) Phase II (2021-25)





CEFIA Flagship projects

- 9 projects are on going with seminar, workshop, capacity building, standardization, etc.
- Promoted by <u>Japanese companies and related organizations</u>



AC-ECP

AC systems striking a balance between energy saving and comfort

Daikin Industries

SteelEcosol

energy saving at steel plants

Flagship project: ZEB (Net-Zero Energy Building)

Outline

- ✓ Objective: Contribute to accelerating the decarbonization in the building sector in ASEAN by promoting the step-by-step approach to achieving Net-Zero Energy Building (ZEB).
- ✓ Implementing institution: ZEB Solution WG in the Japan Association for the Promotion of Energy Saving (JASE-World)

Recent Activities

- ✓ Promote awareness of technologies and ISO Technical Specification 23764
- ✓ Conduct demonstration project in Malaysia

%ISO/TS23764

- •"Methodology for achieving non-residential zero-energy buildings (ZEBs)." A technical specification proposed to ISO by JASE-W, approved and issued by ISO.
- •TS 23764 advocates a step-by-step approach to implementing ZEB.

Step-by-step approach to achieving ZEB ZEB Ready Nearly ZEB Significant energy saving not reach 100% saving of more than 50% But more than ZEB Ready Including Renewable energy

Flagship project: Finance



Outline

- ✓ Objective: Mobilize finance to facilitate energy transition and decarbonization in ASEAN.
- ✓ **Implementing institution**: Association of Development Financing Institutions in Asia and the Pacific (ADFIAP)*

*90 member-institutions in 40 countries

Recent Activities

- ✓ Organize seminars to introduce Japanese companies' decarbonizing technologies to local development banks in ASEAN
- ✓ Support DFIs develop and implement programs for clean energy project
 - \Rightarrow TRANSITION FINANCE ACCELERATION LABORATORY (TFAL)
 - In 2023, TFAL provided in-depth one-on-one capacity building to DBP (Development Bank of the Philippines) to develop financing program on Net-Zero Energy Buildings (ZEB)/Green Building (GB).
 - Currently, working to expand this case to Bank Pembangunan Malaysia Berhad (BPMB).

The 6th CEFIA Government-Private Forum

@Bangkok, Thailand on July 23, 2024 (host: DEDE of Thailand)

- Around 55 people at the venue including 25 speakers from Japanese industries and ASEAN governments, ACE (ASEAN Center for Energy), etc.
- Shared the progress of flagships, new technologies (hydrogen, ammonia), ASEAN countries' policy development and needs, discussed finance and future cooperation.







▲Group photo

▲ Panel discussion

▲Closing presentation

Next... Please come and join us!!

The 7th CEFIA Government-Private Forum in Japan (February 13 &14, 2025) including a site-visit to showcase Japan's decarbonizing technologies such as hydrogen and ammonia



Japan's NMA(2): Adaptation

SUBARU initiative

\sim **SU**stainable **B**usiness of **A**daptation for **R**esilient **U**rban future \sim

- Launched with UN Habitat at COP27 in 2022
- Improve the resilience of cities in the Asia-Pacific region together with Japanese companies
- Formulate public-private partnership projects
 - 1. Focus on local circumstances
 - 2. Promote diverse partnerships, such as cities and private sectors
 - 3. Enhance involvement of startup companies and SMEs

▼Discussion with UN Habitat at COP27









*Regional office for Asia and the Pacific

■ UN Habitat offices in 17 countries Afghanistan, Cambodia, China, Fiji, India, Iran, Japan, Laos, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Solomon Islands, Sri Lanka, Thailand, Vietnam

*Solomon Islands is closed due to vacancy

Side event with UN Habitat at COP28▲

SUBARU Initiative activities **UN Habitat Environmental Technology Expert Group Meeting**

- Held annually, with participants from both Asia and the Pacific region and Japan.
- Conducted matching between the local governments' needs and technologies available

UN Habitat 14th Environmental Technology Expert Group Meeting

Theme: Sustainable Urban Development through Climate Adaptation and Action

Date: September 12, 2023 @Fukuoka city, JAPAN

Participants:

<Japanese private sector>

Daiken, ECOSYSTEM, KAWASHIMA Panasonic Holdings, SHABONDAMA SOAP TAIHOU KINZOKU

<Asia local/national gov.>

Cambodia (Ministry of Environment), Nepal (Lalitpur Metropolitan City) Philippines (Province of Iloilo), Vietnam (Hio An City)



▼Site-visit to TAIHOU KINZOKU



SUBARU Initiative activities

Demonstration and Workshop@ Lalitpur Metropolitan City, Nepal

- As a follow-up to UN Habitat Environmental Technology Expert Group Meeting, ECOSYSTEM match with Lalitpur, Nepal.
- Demonstration and workshop held in January 2024

[Demonstration]

- Demonstration in a portion of a city-owned park
- After the construction, the Deputy Mayor of Lalitpur visited the park to confirm the permeability of the pavement material
- Promoting the technological capabilities of Japanese companies.





[Workshop]

- For local government technical staff, university students majoring in urban development, NGO staff, and others
- Introduction of Good Practices for Adaptation by METI
- Sharing Detailed technical description by ECOSYSTEM





SUBARU Initiative activities

UN Habitat 15th Environmental Technology Expert Group Meeting (@Online, Sept. 2024)

Theme: Sustainable Urban Development through Climate Adaptation and Action

- Solutions through Urban Energy and Green Building Technologies -

Participants:

<Japanese private sector>

Kyuden Mirai Energy, Agritree Panasonic Operational Excellence, Challenergy, Golden Dowa Eco-system Myanmar

<Asia local/national gov.>

Nepal (WindPower)

Philippines (Province of Iloilo)

Vietnam (Institutional Strengthening and Capacity Building for Urban Development)





◆Opening remarks by UN Habitat and METI

▼Screenshots of Participants





Lessons Learned

CEFIA – Mitigation and Clean energy

- Regional Cooperation (vs bilateral cooperation)
- Various technology needs –RE, EE, and hydrogen, ammonia, etc.
- **Involving Private sectors** for promotion (Japanese vs ASEAN's)
- **Utilizing Energy forum** (vs Climate Change)
- Step by Step approach from Capacity building to FS, demonstration (Need to reach out finance for scaling up)

SUBARU initiative -Adaptation

- Collaboration with UN Habitat
- Reaching out local communities and cites in Asia and Pacific
- Involving Private sectors for promotion and business matching (Support for SMEs, start-ups)
- Step by Step approach from Capacity building to demonstration (Need to develop business model for financing)