

Cleaner Energy Future Initiative for ASEAN (CEFIA)

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OUTLINE

- 1. Brief Introduction of CEFIA**
- 2. CEFIA Flagship Projects**
- 3. CEFIA Government-Private Forum**
- 4. CEFIA Digital Platform**
- 5. Discussion under COP**

1. Brief Introduction of CEFIA

What is CEFIA?

Cleaner Energy Future Initiative for ASEAN

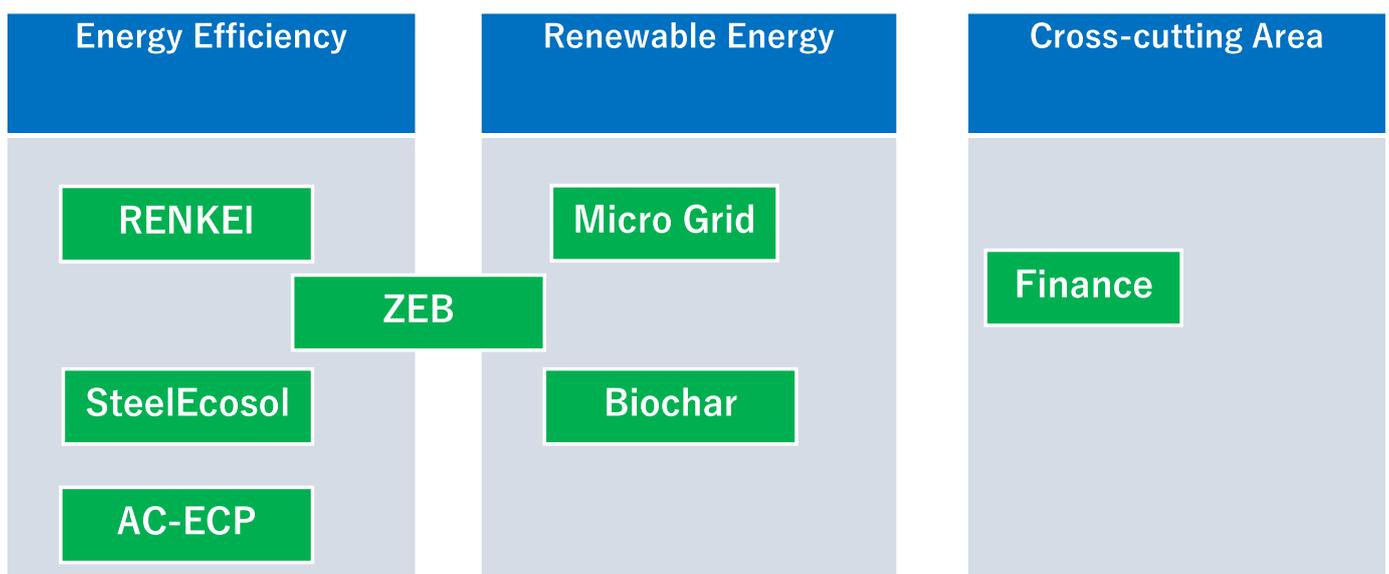
- Launched at the **16th ASEAN+3 Energy Ministerials** in September, 2019
- A Public and Private initiative for accelerating the deployment of cleaner energy and decarbonization technologies, contributing to **decarbonization in the ASEAN region**
- 3 Key Pillars:
 - (1) **Decarbonizing Technologies** (energy efficiency, renewables, etc.)
 - (2) **Institutional Arrangements** (policy framework, standardization, etc.)
 - (3) **Finance** (SDGs, ESG, local financial institutions, etc.)
- Align and collaborate with 3 programs under **the ASEAN Plan of Action for Energy Cooperation (APAEC) Phase II (2021-2025)**
 - No. 4 Energy Efficiency and Conservation
 - No. 5 Renewable Energy
 - No. 6. Regional Energy Policy and Planning
- Provide **Capacity building support through Flagship projects**



2. CEFIA Flagship Projects

Flagship Projects

Showcase good practices of cooperation in introducing technology in parallel with developing appropriate policy and institutional framework, as well as mobilizing public and private finance (governments, private sectors, and academia)



✓ Contribute to APAEC Phase II



Renewable Energy
Increase component of RE to **23%** by 2025



Energy Efficiency And Conservation
Reduce energy intensity by **20%** by 2020

Overview of Flagship projects

Title	Purpose	Activities
ZEB	Promoting and developing the Net-Zero Energy Building (ZEB) to contribute to the acceleration of energy efficiency in the demand side in ASEAN.	<ul style="list-style-type: none"> ➤ International Standardization ➤ Seminar and workshop
RENKEI	Disseminating control optimization (RENKEI) to reduce energy consumption throughout utility plants and manufacturing plants through IoT.	<ul style="list-style-type: none"> ➤ Feasibility Study for Thailand Industry ➤ Workshop
Microgrid	Introducing Microgrid system combining Magnus wind turbines, solar power, and energy storage functions into remote islands, to realize decarbonized energy and improving resilience.	<ul style="list-style-type: none"> ➤ Feasibility Study ➤ Demonstration project
SteelEcosol	Diagnosing and introducing the best available energy-saving technologies (BAT) to the steel industries.	<ul style="list-style-type: none"> ➤ Capacity Building ➤ Public-Private Dialogue ➤ Steel plant diagnosis
Biochar	Introducing the technology of storing CO2 as bio-charcoal while biomass gasification and promoting the biochar in the ASEAN region.	<ul style="list-style-type: none"> ➤ Capacity building ➤ Seminar and workshop
AC-ECP	Disseminating Air Conditioning System with Excessive Cooling Protection (currently being introduced on a trial basis in Thailand and Vietnam), which provides the same level of comfort even at high temperature settings.	<ul style="list-style-type: none"> ➤ Capacity building ➤ Seminar and workshop
Finance	Activities for mobilizing finance to facilitate energy transition and decarbonization in ASEA.	<ul style="list-style-type: none"> ➤ Advisory for local financial institutions ➤ Capacity Building

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CEFIA flagship project (ZEB)

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).**

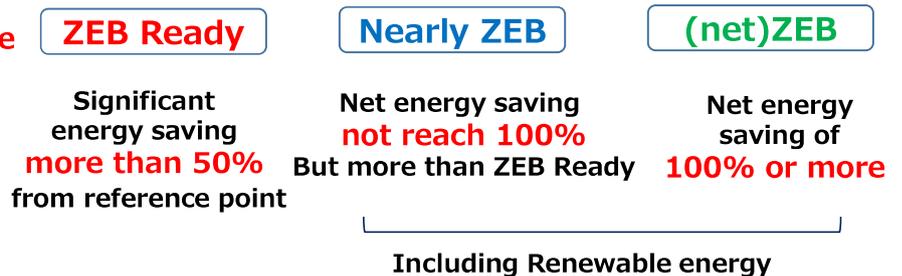
◆ Implementation System

CEFIA supports the activities of the "ZEB Solution WG" at **the Japanese Business Alliance for Smart Energy Worldwide (JASE-World).**

◆ Expected Effect

Contributing to accelerating decarbonization in the building sector

Step-by-step approach to achieving ZEB



◆ Major Activities

- Promote awareness of technologies and **ISO Technical Specification TS23764 (Workshop, Promotion video, etc.)**

<https://www.cefia-dp.go.jp/fp/zeb/01>

- Support in formulating **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.



Video footage of “Introduction of CEFIA Flagship Project: ZEB”

CEFIA Flagship Project (AC-ECP)

Disseminating Air Conditioning System with Excessive Cooling Protection (currently being introduced on a trial basis in Thailand and Vietnam), which provides the same level of comfort even at high temperature settings.

◆ Implementation System

Sharing expertise and products of AC-ECP by Japanese companies which are aiming for the business development in ASEAN countries.

◆ Expected Effect

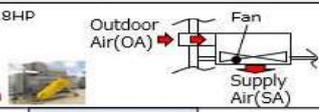
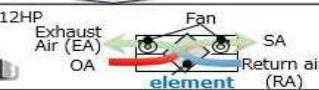
- ❑ AC-ECP prevents energy waste caused by the "overcooling" culture and contributes to energy saving in ASEAN countries

◆ Major Activities

Demonstrating the AC-ECP (Air conditioning system with excessive cooling protect), an energy-saving air conditioning system, and promote awareness of the technology.

Examples of Activities

- Presentation of the contribution of AC-ECP to the decarbonization at the CEFIA Forum
- Trial launch to the building in Bangkok, and in Vietnam as well in next years based on the results in Bangkok.
- The results will be shared through webinars etc.

	System	Description	Energy Spent	Hard Cost
Present	A. 18HP AC 23°C + Normal Ventilation 	X SA temp: Same as outdoor	100 %	100 %
Newly proposed "AC-ECP"	C. 12HP AC 26°C + ERV 	△ SA temp: Higher than indoor temp	66 %	75 %
	D. 12HP AC 26°C + ERV with Refrigerant Coil Element + Coil 	○ Sa temp: Same as indoor temp	66 %	99 %
	E. 12HP AC 26°C + ERV with Ref coil + Positive pressure control + CO2 demand control + AC interlock control 		53 %	101 %

Comparison of cost and energy consumption between Present AC and AC-ECP

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CEFIA Flagship Project (Finance)

Activities for mobilizing finance to facilitate energy transition and decarbonization in ASEAN; conducting analysis of challenges in implementing decarbonization technology in ASEAN, identifying the needs of local financial institutions, and organizing seminars.

◆ Implementation System

Association of Development Financing Institutions in Asia and the Pacific (ADFIAP*), which has a network of development banks in ASEAN, take the lead in the implementation of the project. It also collaborates with experts in the financial sector in ASEAN.

*ADFIAP has currently 90 member-institutions in 40 countries.

◆ Expected Effect

- ❑ Accelerating the mobilization of funds in the flagship sectors
- ❑ Expanding the efforts of financial institutions in the energy transition sector



◆ Activities So far

- **Conducting analysis** of challenges in implementing decarbonization technology
- **Identifying the needs** of local financial institutions
- **Organizing seminars** to mobilize finance.

Example of Webinars and Other Events

- Webinar "Fostering mutual understanding of bottleneck and opportunities for accelerating cleaner energy finance": March 2021
- Workshop "Visualization of carbon footprint reductions by financial institutions" : March 2021
- Webinar "Financing Energy Transition Pathways under the CEFIA": March 2022

◆ Current Activity

TRANSITION FINANCE ACCELERATION LABORATORY (TFAL)

- Supporting Developing Finance Institute and implementation of programs



Scene from the webinar

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TRANSITION FINANCE ACCELERATION LABORATORY

Concept of TFAL

- A virtual capacity building laboratory to provide **resources and lend technical expertise** necessary to help Financial Institutes adopt programs to finance **Net-Zero Energy Buildings (ZEB)/Green Building (GB)**

Approach

1. To support Development banks on the development and implementation of **financing programs** that will help increase access to finance and project formulation
2. To draw lessons from the initiatives and **disseminate them to other ASEAN Developing Finance Institutes**

Excepted Outcomes

- **Development and implementation of a GB Financing Program**
- **Invite interests for Financing Program from owners and developers of GB**

★ TFAL provides in-depth one-on-one coaching and customized training and advisory for **the DBP** in 2023.
(Development Bank of the Philippines)



3. CEFIA Government-Private Forum

CEFIA's Activities

2019

September

16th ASEAN+3 Ministers on Energy Meeting (**AMEM+3**) : The Ministers welcomed the initiative proposed by Japan on CEFIA.

November

1st CEFIA Government-Private Forums: Manila, Philippines, hosted by Department of Energy of Philippines.

2020

September

Virtual Roundtable Discussion on Cleaner Energy Finance in ASEAN.

2021

February

2nd CEFIA Government-Private Forums: online, hosted by DEDE of Thailand.

November

COP26 Side Event at Japan Pavilion

2022

February

3rd CEFIA Government-Private Forums: online, hosted by the Energy Commission of Malaysia

2023

August

5th CEFIA Government-Private Forums: Bali, Indonesia, hosted by Ministry of Energy and Mineral Resources of Indonesia

2024

May 20 (TBD)

6th CEFIA Government-Private Forums: hybrid, hosted by Thailand (TBD)

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The 5th CEFIA Government-Private Forum

- The 5th CEFIA Public-Private Forum was held in Bali, Indonesia on August 25, 2023. This year's forum was held back to back with the ASEAN+3 Energy Ministerial Meeting and the ASEAN Energy Business Forum (AEBF), with participation of Japanese and ASEAN governments, companies, financial institutions, and other stakeholders. Lively discussions were held on flagship projects, finance, CO2 reduction contribution, entrepreneurship development, and energy management using digital technology.
- JETRO Jakarta Office held a mini business matching event during the forum with engagement of Japanese companies working on decarbonization business. CEFIA and JETRO Jakarta Office co-hosted the opening and the mini business matching event.

1. Outline

- Date : Friday, August 25, 2023, 8:00 - 18:00 (GMT+8 Bali Time)
- Location: Bali Nusa Dua Convention Centre, Bali, Indonesia (face-to-face)
- Host: the Ministry of Energy and Mineral Resources of Indonesia; Secretariat: ACE
Cooperation: Ministry of Economy, Trade and Industry (METI)

2. Programs

- Joint Opening Plenary with JETRO
- Session 1: Introduction to CEFIA
- Session 2: Exploring Existing and Future Decarbonisation Technologies in ASEAN
- Session 3: Finance, Framework and Mechanism which support Decarbonisation Technologies
- Session 4: Panel Discussion on ASEAN Best Practices and Initiatives on Smart and Integrated Digital Energy Management in the Industrial, Commercial, and Building Sectors
- Closing
- Mini Business Matching Event (Co-organized with JETRO)

3. Opening Attendees

- Opening Remarks: Mr. Nakatani, Vice Minister of Economy, Trade and Industry
- Opening Remarks: Mr. Triharyo Indrawan Soesilo (Hengki), Special Advisor to the Minister of Energy & Mineral Resources for Acceleration of Infrastructure & Investment

4. Participants

- 23 speakers and panelists, around 80 participants at the venue



Opening Group Photo



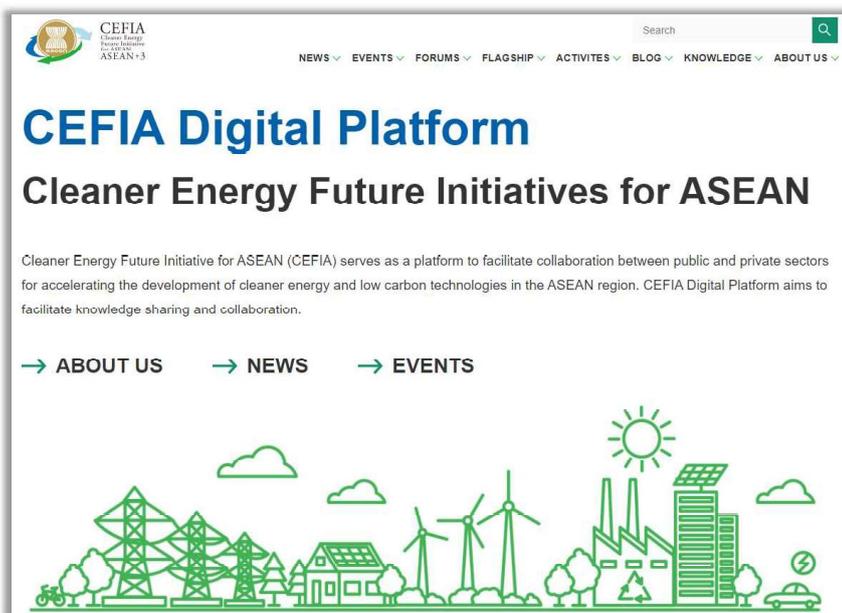
Closing Group Photo

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4. CEFIA Digital Platform

CEFIA Digital Platform

- CEFIA Digital Platform aims to facilitate knowledge sharing and collaboration.



Objective

- To enhance roles (Showcase, Workspace, Databank, and Catalyst) through Digital Collaboration
- To provide various information of CEFIA activities to facilitate knowledge sharing and various collaborations

<https://www.cefia-dp.go.jp/>

5. Discussion under COP

Discussions under COP

2023 Mitigation Work Program Global Dialogue

Topic: "Accelerating just energy transition"

Subtopic: (a)renewable energy, (b)grid and energy storage, (c)CCU and CCS, **(d)Energy Efficiency**

COP28 Nov. 30-Dec. 13, 2023

Draft decision -/CMA.5

Outcome of the first global stocktake

28. *Further recognizes* the need for deep, rapid and sustained reductions in greenhouse gas emissions in line with 1.5 ° C pathways and *calls on* Parties to contribute to the following global efforts, in a nationally determined manner, taking into account the Paris Agreement and their different national circumstances, pathways and approaches:

(a)Tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030;

- (b) Accelerating efforts towards the phase-down of unabated coal power;
- (c) Accelerating efforts globally towards net zero emission energy systems, utilizing zero- and low-carbon fuels well before or by around mid-century;
- (d) Transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science;
- (e) Accelerating zero- and low-emission technologies, including, inter alia, renewables, nuclear, abatement and removal technologies such as carbon capture and utilization and storage, particularly in hard-to-abate sectors, and low-carbon hydrogen production;
- (f) Accelerating and substantially reducing non-carbon-dioxide emissions globally, including in particular methane emissions by 2030;
- (g) Accelerating the reduction of emissions from road transport on a range of pathways, including through development of infrastructure and rapid deployment of zero- and low-emission vehicles;
- (h) Phasing out inefficient fossil fuel subsidies that do not address energy poverty or just transitions, as soon as possible;

2024 Mitigation Work Program Global Dialogue

Topic: **"Cities: buildings and urban systems"**.

Thank You!!



CEFIA
Cleaner Energy
Future Initiative
for ASEAN
ASEAN+3