





# Empowering Action to ZERO, AZEC

Initiatives for Decarbonization by ASEAN Countries Within AZEC

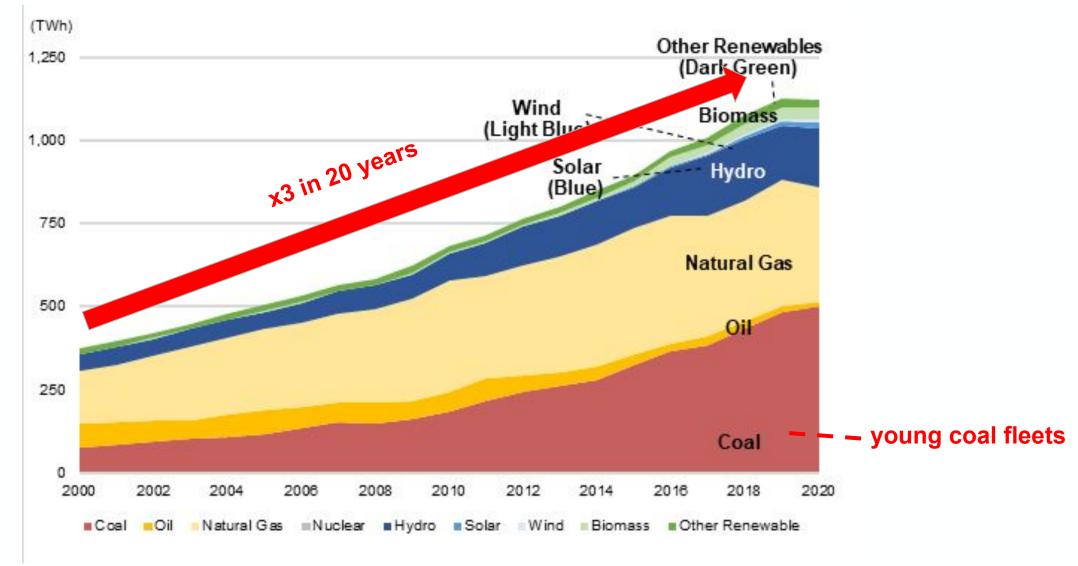
6<sup>th</sup> June 2025

Agency for Natural Resource and Energy, Ministry of Economy, Trade and Industry

# Introduction to AZEC

## Asian path

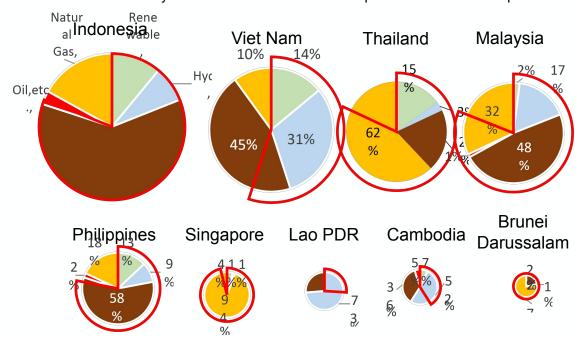
#### Electricity Production by Source, <ASEAN in 2000-2020>



### Asian transition, how?

- Although <u>many ASEAN countries</u> have announced their intention for carbon neutrality, many of them heavily <u>depend on coal- and natural gas-fired power generation</u>.
- As the demand for electricity further increases in line with economic growth, it is essential to steadily promote
   decarbonization in a practical manner. To this end, cooperation through Japanese technology, finance and
   experiences under AZEC platform are also important.

<sup>\*</sup>The amount of electricity in ASEAN has doubled in the past decade and is expected to triple in the next 3 decades.



(Reference) China: Coal 64%, Natural Gas 3%, India: Coal 72%, Natural Gas 4%

\*\* The area of the pie chart is proportional to the amount of electricity generated in each country. However, Cambodia and Brunei are approximately four times of the actual area.

#### **CN** goals set by Southeast Asian countries

Country	CN Target
Indonesia	CN by 2060
Viet Nam	CN by 2050
Thailand	CN by 2065 ※If it's only CO2, then by 2050.
Malaysia	CN by 2050
Philippines	_
Singapore	CN by 2050
Lao PDR	CN by 2050
Cambodia	CN by 2050
Brunei Darussalam	-
Myanmar	CN by 2050

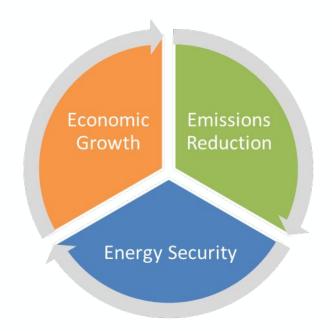
Source: NDCs submitted by each country, etc.

### Asia Zero Emission Community(AZEC) Principles

### Triple breakthrough

Japan aims to simultaneously achieve

- Emissions Reduction
- Economic Growth
- Energy Security



#### One goal, various pathways

Toward our common goal of achieving net zero, we will make practical energy transitions through various pathways depending on the circumstances of each country.



# **AZEC (Asia Zero Emission Community)**

- Proposed by PM Kishida, 2022
- 11 partner countries from ASEAN, Australia and Japan
- AZEC Energy Ministerial Meeting (Tokyo, Jakarta), AZEC Leaders Meeting (Tokyo, Laos) in 2023-2024
- Supporting policy development ("Asia Zero Emission Center" to be set up in ERIA), fostering public-private cooperation (AZEC Advocacy Group)











Cambodia





Japan

Lao PDR







Malaysia

**Philippines** 

Singapore





Thailand

Viet Nam

### 2<sup>nd</sup> AZEC Leaders Meeting (Vientiane, 11 October 2024)

#### "Action Plan for Next Decade"

1. <u>Develop a short- to</u> <u>medium-term action plan to</u> <u>facilitate "AZEC solutions"</u>

2. <u>Sectoral initiatives</u>

3. Promoting tangible projects

- □ visualization of GHG emissions throughout the supply chain
- □ transition finance
- agriculture and forestry sectors
- ☐ transport sector
- ports and road infrastructure
- carbon markets



- sector-specific collaboration initiatives
- power generation
- sustainable fuel
- next-generation industry
- ☐ Asia Zero Emission Center

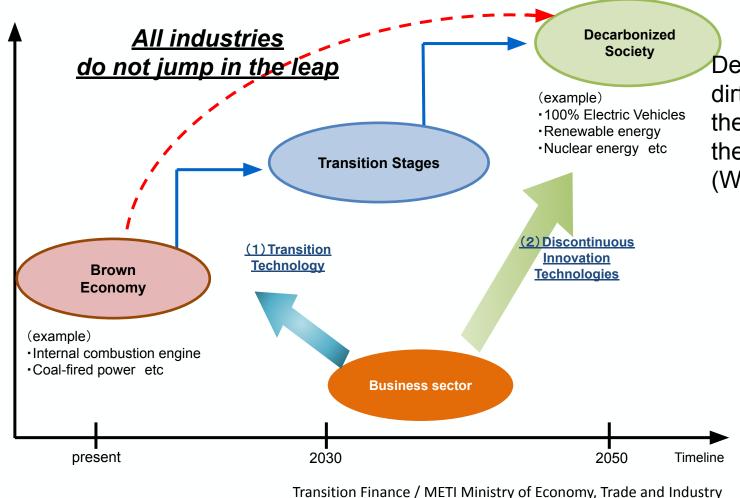


(in case of Japan)

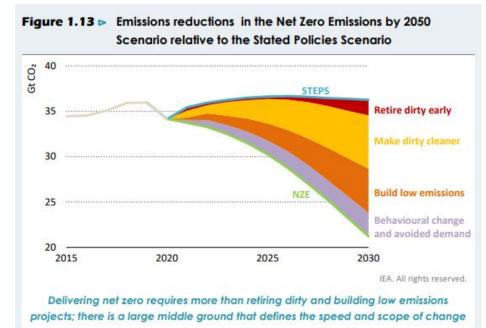
- ☐ through official development aid (ODA)
- ☐ JBIC, JETRO, JOGMEC, NEDO NEXI etc.
- agriculture, forestry, smart city, waste treatment.
  Etc.

### **Transition Finance**

What is Transition Finance and why is it important?



Delivering net zero requires more than retiring dirty and building low emissions projects; there is a large middle ground that defines the speed and scope of change (World Energy Outlook 2021, IEA)



#### Outline of AZEC Sectoral initiatives

#### AZEC Initiative to promote Zero emission Power

- While demand of electricity is increasing, in Southeast Asia, which is highly dependent on fossil fuels, it is necessary to decarbonize thermal power generation in a realistic manner while considering the stable supply of electricity & expansion of energy access.
- The maximum amount of renewable energy will be deployed to decarbonize the power sector through a variety of pathways.

#### AZEC Initiative to create sustainable fuel market

- While demand of electricity is increasing, in Southeast Asia, which is highly dependent on fossil fuels, it is
   necessary to decarbonize thermal power generation in a realistic manner while considering the stable supply of
   electricity & expansion of energy access.
- The maximum amount of renewable energy will be deployed to decarbonize the power sector through a variety of pathways.

#### AZEC Initiative to establish next generation industry

- Decarbonization is necessary as a corporate strategy in response to stronger request from buyers to reduce CO2
   emissions per product in the global supply chain.
- The new model will be created for carbon neutral industrial parks that will enable to manufacture by clean power sources in addition to promoting energy efficiency.
- By developing it horizontally, we will promote the decarbonization of industrial parks.

# AZEC Leading Action Forum (AZEC LEAF)

- Policymakers from AZEC partner countries conducted knowledge sharing and discussions in Tokyo, focusing on the three sectors of power, transportation, and industry, as agreed at Second AZEC Ministerial Meeting in August 2024.
- The following topics are the specific agenda items.
  - 1. General Climate and Energy Policy
- 2. Power Sector
- 3. Transport Sector
- 4. Industry Sector
- 5. Transition Finance





# Promoting tangible projects

- Currently more than 120 AZEC projects added since 1st Leaders Meeting, and there are projects that have progressed to FID.
- Additionally, AZEC is currently conducting follow-up on all of these projects.



**Thang Long Industrial Park Sumitomo Corporation** 





Jaunched of the AZEC SAVE platform

JBIC, AOTS, JETRO, NEDO

#### Countries are spreading the AZEC message widely.



airlanggahartarto\_official Kemarin (Rabu, 22/8), saya menghadiri serangkaian acara Asia Zero Emission Community (AZEC) di Jakarta, Krisis iklim telah menjadi tantangan global yang membutuhkan respon nyata dari seluruh negara untuk mengatasinya. Sejalan dengan hal tersebut, kolaborasi antar negara perlu dikedepankan dalam mencari solusi. AZEC hadir sebagai komitmen kita bersama untuk mendorong transisi energi dan keberlanjutan lingkungan dapat terus kita jaga.



Keo Rottanak កែវ រតន: 😊

រដ្ឋមន្ត្រីសេដ្ឋកិច្ច ពាណិជ្ជកម្មនិងនស្សាហកម្មជប៉ុន ឯន Ken Saito បាន ជួបពីភាក្សាការងារទ្ទេភាគីជាមួយឯន កែវ រតនៈ នៅរដ្ឋធានីហ្សាភាតា ដោយ **ផ្តោតលើវិស័យថាមពល តួរខាទីសកម្មរបស់កម្ពុជាក្នុងការជំរុ...** もっと見る

翻訳を見る







**●** 525 **○** 2 **▼** 1

rosanroeslani Hari ini saya sebagai Co-chair dalam The 2nd AZEC Ministerial Meeting, melakukan pertemuan Bilateral dengan Ministry of Economy, Trade and Industry (METI) Jepang/AZEC Joint Task Force, menandatangani MOU Indonesia-Jepang di Sektor Energi, dan memberikan remarks di Ministerial Meeting dan Launch Ceremony.

Sava sekaligus mendampingi Menteri Koordinator Bidang Perekonomian, Bapak Airlangga Hartarto @airlanggahartarto\_official dalam acara yang merupakan bagian dari komitmen Pemerintah Indonesia dalam mendorong transisi energi dan mencapai Net Zero Emission pada 2060

Lokasi: The St. Regis Hotel. Jakarta, Rabu 21 Agustus 2024



ASEAN Centre for Energy

Asia Zero Emission Community (AZEC) 2nd Ministerial Meeting... もっと見る

翻訳を見る





Tan See Leng 🔮

Am in Jakarta today to attend the 2nd Asia Zero Emissions Community (AZEC) Ministerial Meeting, where my fellow Ministers and I discussed collaboration opportunities towards a 'triple breakthrough': addressing climate change, promoting inclusive economic growth and energy security. We also launched the Asia Zero Emissions (AZE) Centre to accelerate our transition towards a low-carbon future for the region.

On the sidelines of the Meeting, I signed a Memorandum of Cooperation (MOC) on carbon capture and storage (CCS) with Japan Minister of Economy, Trade and Industry Ken Saito. The MOC will facilitate knowledge exchange on best practices for cross-border CCS, and share insights on CCS technologies. Additionally, it will pool together expertise and resources from Singapore and Japan to accelerate the adoption of CCS in the

Happy to also meet Indonesia Coordinating Minister for Economic Affairs Airlangga and Ministers from Japan, Brunei, the Philippines and Malaysia to reaffirm bilateral ties and discuss energy cooperation.

Kudos to Indonesia for hosting a successful AZEC this year and to Japan for initiating this meaningful platform.





Arsjad Rasjid

Dalam pertemuan Asian Zero Emission Community (AZEC) 2nd Ministerial Meeting di Jakarta hari (21/8), sava mewakili AZEC Advocacy Group menyerahkan joint recommendation kepada pemerintah negara mitra AZEC, yaitu Menteri Investasi/Kepala BKPM, Bapak @rosanroeslani dan Menteri @meti\_japan HE. Saito Ken.

Kami berharap rekomendasi yang diusulkan dapat dipergunakan untuk melengkapi kebijakan dan proyekproyek utama pemerintah dan lembaga dalam kerangka AZEC. Sebagaimana kita semua setujui bahwa 'green' dan 'growth' harus berjalan bersamaan.

Pada kesempatan ini, saya juga menyaksikan peluncuran Asia Zero Emission Center sebagai upaya kolektif untuk mencapai masa depan yang berkelanjutan bagi negaranegara mitra AZEC.



#### AZEC Introduction - Watch Now on METI's Official YouTube Channel

#### <u>Discover the latest AZEC initiatives in our new video.</u>











Asia Zero Emission Community (AZEC) General Introduction
—AZEC: Empowering Action to Zero —



Asia Zero Emission Community (AZEC) Detailed Exposition
—AZEC: Empowering Action to Zero—







Ministry of Economy ,Trade and Industry, Japan Asia Zero Emission Community (AZEC) Website

Thank you for your kind attention.