



# Energy Transition Mechanism (ETM) —Coal to Clean Transition Finance

Meutia Chaerani  
Climate Change Specialist

5 June 2024

# Energy Transition Mechanism (ETM)

## Background

- Legacy coal-fired power plants (CFPPs) constitute the single largest source of greenhouse gas (GHG) emissions from human activity. Without addressing them, **we will miss the Paris Agreement targets**. Accelerating the retirement of these plants that are dominant in grids in the Asia and Pacific region will not only abate emissions but also unlock significant investments in renewables, storage, hydrogen, electric vehicles, and other clean energy technologies.
- Renewable energy costs are rapidly declining. The cost of operating existing coal plants is expected to be higher than the levelized cost of new renewable energy plants in the next 10–15 years. However, in many developing economies, coal power plants have **secured long-term power offtake agreements, to avoid being stranded**. Hence, **an intervention is needed**.
- ADB launched the Energy Transition Mechanism (ETM), based on a concept originally proposed under the World Economic Forum umbrella in 2020<sup>1</sup>, as a **replicable and scalable market-based model** to help accelerate the transition from coal and other fossil-based power and heat generation to clean and renewable energy sources.
- Retiring 50% of today's coal power plant capacity in Indonesia, Philippines and Viet Nam 10–15 years sooner could **reduce carbon dioxide emissions by approximately 200 million tons per year and 2–3 gigatons cumulatively**. The scheme could be replicated in other economies with high coal share and similar market barriers.
- ADB's role is to help crowd in **public and private sector partners**, support a **just transition** for affected communities, ensure **climate credentials**, and harness **carbon offsets**.

<sup>1</sup> Source: Kanak, Donald Perry (2020). [“How to replace coal power with renewables in developing countries”](#). World Economic Forum blog.

# ADB's Energy Transition Mechanism (ETM)

## Increasing momentum—theory to operationalization

2021

- ETM launch
- Japan's \$25M seed financing for ETMPTF

Indonesia ETM Country Platform launch on 14 Nov. 2022 during the Bali G20 by ADB and Indonesia's Ministry of Finance, with World Bank and Islamic Development Bank.



2023

- Agreement to retire Cirebon 1 CFPP ~7 yrs earlier
- New Zealand's \$25M ETMPTF contribution
- MOU with Singapore and GEAPP on the \$2B Transition Finance Platform (ETM FV)
- Approved \$500M CIF ACT concessional financing for Indonesia



ETM launch at UN Climate Change COP26, Glasgow on 3 Nov. 2021 by ADB with the Governments of Indonesia and the Philippines.

- Indonesia ETM Country Platform launch
- MOU signing for Cirebon 1, the 1<sup>st</sup> ETM transaction
- Germany's €30M ETMPTF contribution

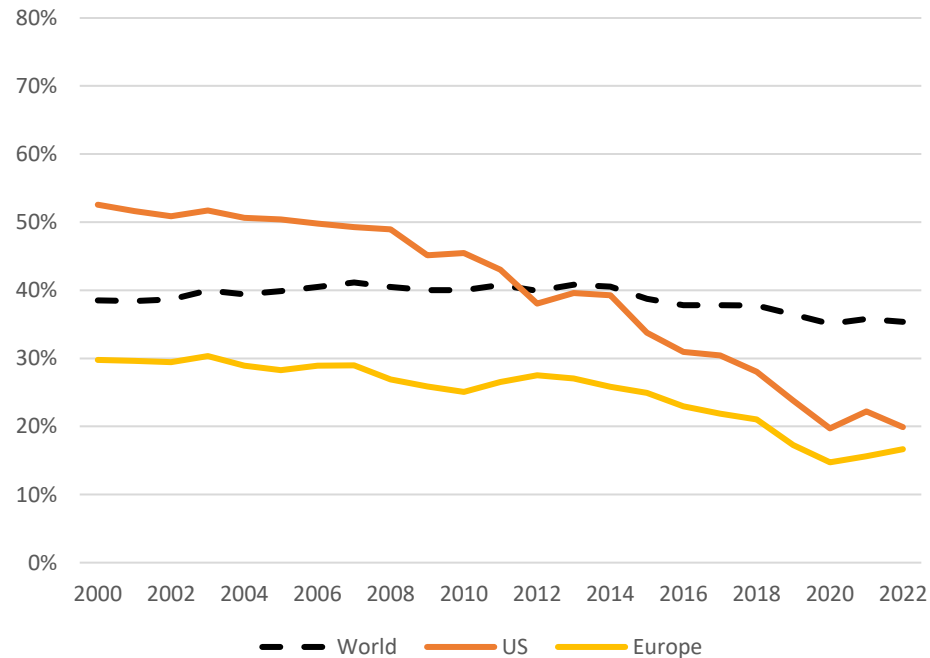
2022



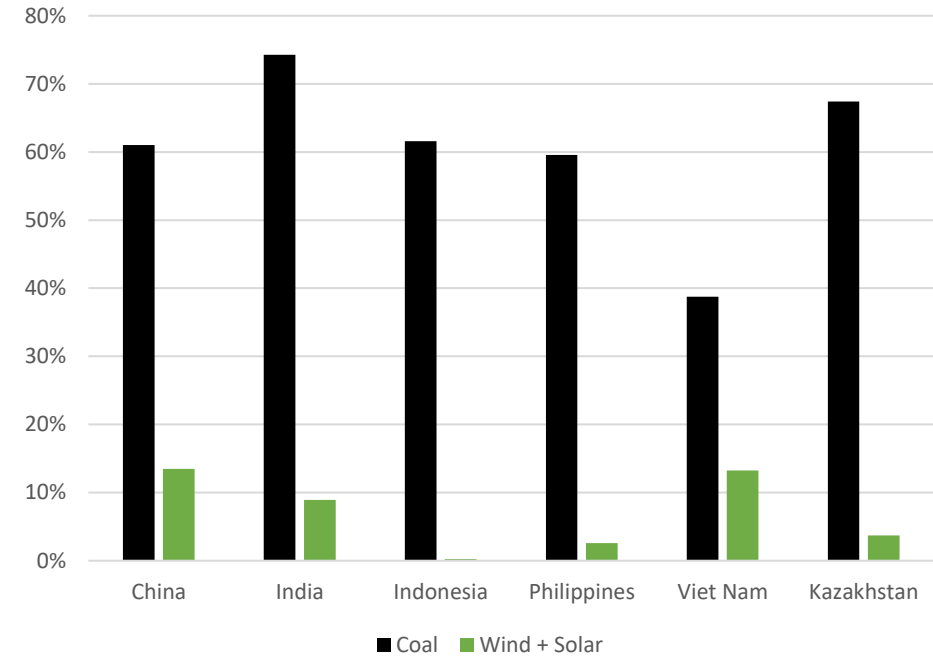
MOU signing between ADB, Monetary Authority of Singapore, and GEAPP for the Transition Finance Platform, at Dubai COP28 on 5 Dec. 2023.

# Coal-fired electricity must drop, but remains significant in developing Asia

## Share of coal-fired power generation dropped in Europe and the US...



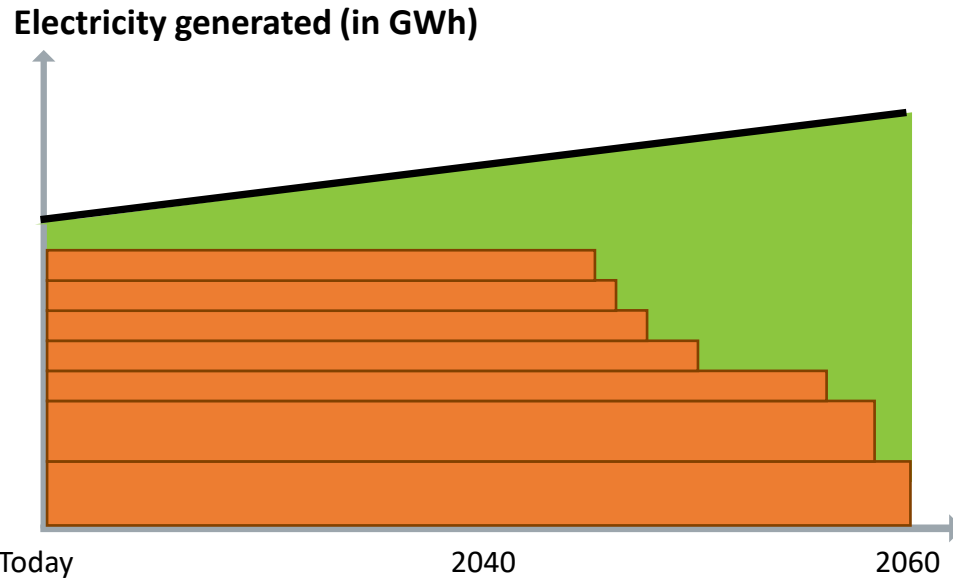
## ...but remains very high in Asia (2022)



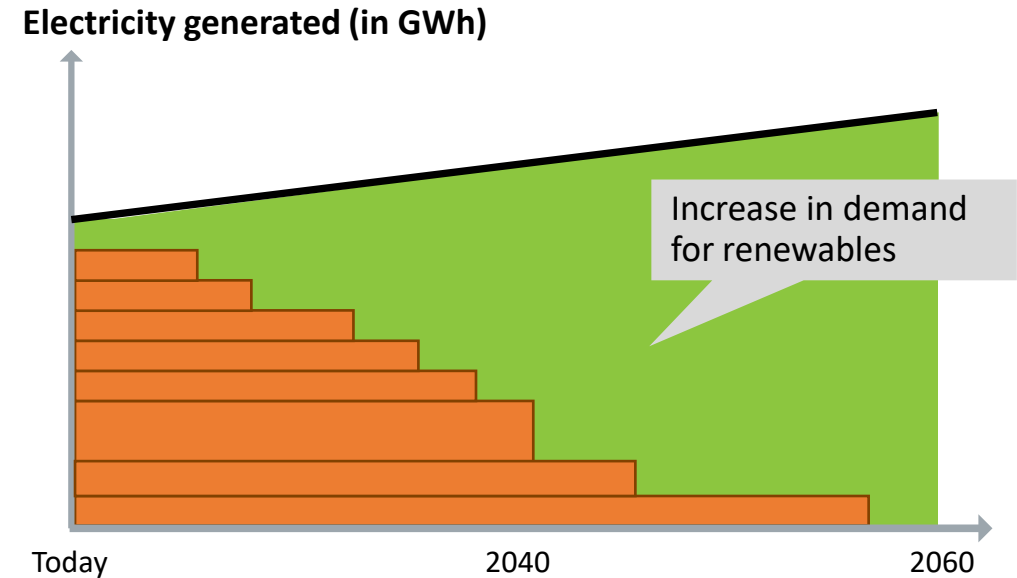
Large-scale solution needed to simultaneously and rapidly decarbonize and build up clean energy in Asian developing countries.

# Why speed up the retirement of coal-fired power plants?

## Business-as-Usual



## With Energy Transition Mechanism



— Total energy demand

■ Coal-fired generation

■ Renewable energy generation

### Early retirement of existing coal-fired power plants can

- reduce emissions and improve population health,
- create additional demand for clean energy investments, and
- lower overall generation costs in the long-run.

# ADB's Holistic 4P Approach Anchoring the ETM

## People

Supporting just transition, protecting livelihoods and affordable electricity

- Just transition assessments from national to asset level, financing facility, and technical assistance
- Strategic environmental and social assessment and project safeguards
- Stakeholder engagement and communications

## Policy

Supporting policies and regulations to accelerate energy transition

- Climate change policy programs
- Energy sector reform programs
- Sector analyses and advisory
- Policy-based and results-based loans

## Power

Promoting scalable, market-based model for energy transition

- Investments in early retirement or repurposing of fossil-based heat and power plants, clean energy, storage and grid enhancement
- Technical, financial, and commercial analyses
- Transaction advisory

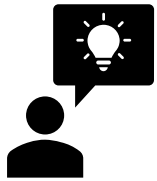
## Partnership

Based on solid partnership with national and international stakeholders

- Partnering with governments; international financial institutions; private sector; commercial lenders and investors; philanthropies; CSOs
- Fund mobilization (ETMPTF, ETM FV, Indonesia ETM Country Platform, JETP, CIF ACT)

# ETM's Phased Approach in DMCs

Illustrative examples of activities under each phase.



## 0 | PRE-FEASIBILITY STUDY

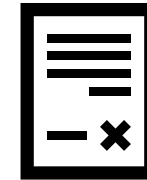
- Policy and regulatory assessment
- Multicriteria analysis to identify priority plants for retirement
- Financial and economic analysis

Country-level



## 1 | FULL FEASIBILITY STUDY

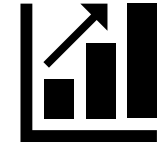
- Technical feasibility (grid impacts, replacement power, etc.)
- Policy and regulatory feasibility, policy-economy dynamics
- Broad just transition impacts
- Contractual and financial feasibility
- Strategic environmental and social assessment



## 2 | PILOT TRANSACTIONS

- Technical feasibility (grid impacts, replacement power, etc.)
- Financial and commercial modeling (termsheet)
- Just transition impacts at asset-level
- Project-level safeguards

Transaction-level

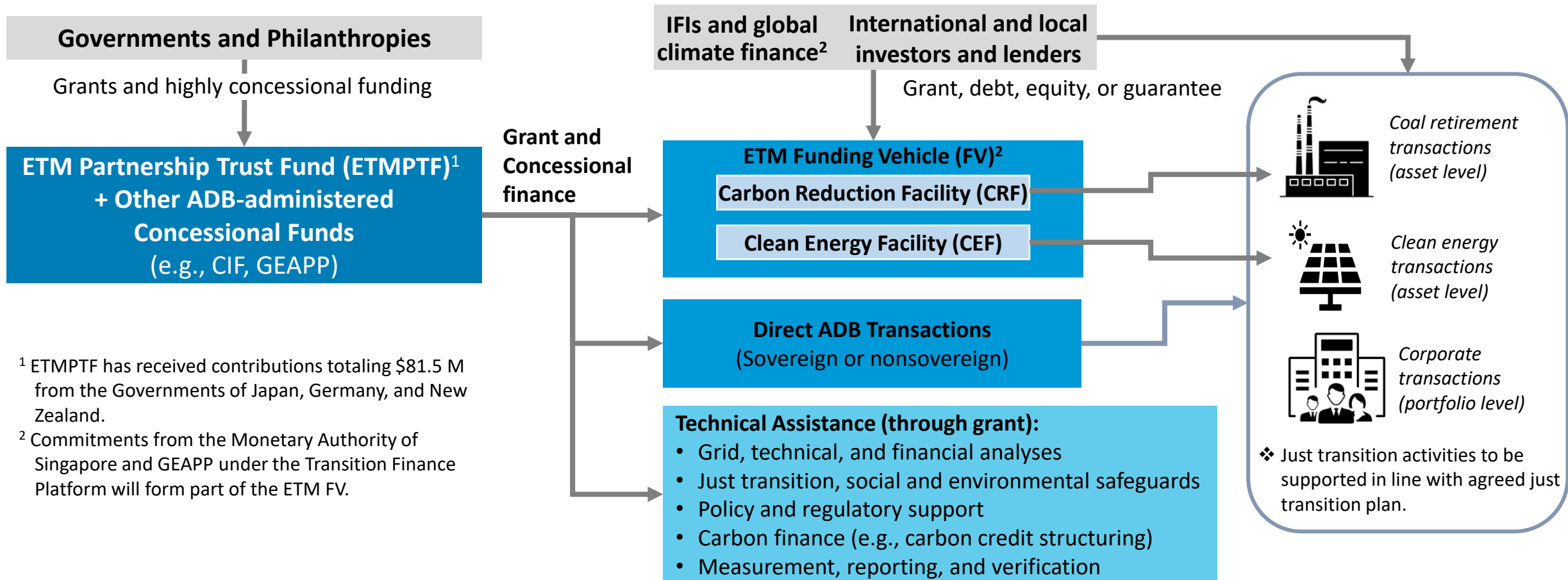


## 3 | SCALE UP

Replicating ETM transactions in other plants. This will only be done once the country has in place a robust policy framework that irreversibly commits them to a decarbonization path consistent with Paris targets.

# The ETM Program Overview

- Accelerate the retirement or repurposing of coal-fired power plants using public and private finance through refinancing, acquisition, or sustainability-linked corporate loans
- Scale up investment in clean energy and energy storage
- Aim to achieve just and affordable transition, addressing impacts of coal retirement on people and communities



# Operationalizing ETM

## Updates on thematic workstreams

### ETM Funding Vehicle

- MAS and ADB signed an MOU to establish a transition finance platform targeting \$2 billion
- Development of Business Plan for the establishment of ETM FV; market engagement for potential Asset Manager

### ETM Partnership Trust Fund

- \$81.5 million funding from Japan, Germany, and New Zealand; continuous fundraising

### Carbon finance and taxonomy

- Draft concept for carbon methodology for submission under Article 6.4; Collaboration with methodology developers for Article 6.2 and voluntary market
- Participation in TRACTION, supporting the development of 2 pilots on carbon crediting for CFPP retirement and the development of carbon market policy/framework in the PHI
- Support to the ASEAN taxonomy revision

### Technical feasibility

- Technical, financial and commercial feasibility studies
- Grid impact and captive power analyses conducted in INO
- Ongoing conceptualization for repurposing study scope

### Just Transition

- Ongoing JT national framework development—INO and PHI
- Pilot preliminary JT assessment and plan for Cirebon 1 published
- Upstream analytics for JT at Mindanao CFPP initiated
- Ongoing development of the ADB JT ETM framework and Stakeholder Engagement Plan for JT

### Safeguards and stakeholder engagement

- Regional SESA scoping report published; INO SESA wrapping up; Ongoing PHI SESA scoping
- Disclosed draft Cirebon 1 E&S compliance audit report with E&S action plan to communities and on the ADB website
- Development of ETM stakeholder engagement plan and ongoing engagement at national- and asset-levels

### Partnerships

- Support for INO JETP Secretariat; Early inputs to VIE JETP
- Support to INO and PHI to access CIF ACT \$500M concessional finance
- Support from GEAPP through energy transition trust fund

₹ = United States dollar, ADB = Asian Development Bank, ASEAN = Association of Southeast Asian Nations, CFPP = coal-fired power plant, CIF ACT = Climate Investment Funds Accelerating Coal Transition, E&S = environmental and social, ETM = Energy Transition Mechanism, GEAPP = Global Energy Alliance for People and Planet, JETP = Just Energy Transition Partnership, JT = just transition, INO = Indonesia, MOU = memorandum of understanding, PHI = Philippines, SESA = strategic environmental and social assessment, TRACTION = Transition Credits Coalition, VIE = Viet Nam.

# Operationalizing ETM

## Updates on country workstreams

### Indonesia

 Phase 2 | PILOT TRANSACTIONS

- Support for the Indonesia ETM Country Platform
- Completed studies (captive power, grid impact)
- MOUs for precedent transaction (Cirebon 1) signed in COP27 and COP28; Legal documentation ongoing
- CIF ACT IP approved in June 2023 (\$500M concessional leveraging \$4.5B of cofinancing); \$1M JT TA approved in Jan. 2024; \$100m IPP program approved in March 2024
- Lead the support to the JETP Secretariat which manages the \$20B International Partners Group pledge

### Philippines

 Phase 1 | FULL FEASIBILITY STUDY

- Progressed from pre-feasibility to full ETM study
- CIF ACT IP approved in May 2024 (\$500M concessional funding to leverage \$2.3B of cofinancing)
- Transaction Advisory for pilot ETM transaction for SOE-owned CFPP (e.g., Mindanao CFPP)

### Viet Nam

 Phase 0 | PRE-FEASIBILITY STUDY

- Ongoing discussions with government for launching a feasibility study
- Technical support for JETP ongoing

### Kazakhstan

 Phase 0 | PRE-FEASIBILITY STUDY

- Completed pre-feasibility study
- Ministry of Energy agreed to proceed with full feasibility on combined heat and power transition

### Pakistan

 Phase 0 | PRE-FEASIBILITY STUDY

- Completed pre-feasibility study with stakeholder consultation
- Awaiting government direction for full feasibility

### Expanding to new DMCs

- Exploring private sector transactions
- Preliminary discussions for combined heat and power efforts

\$ = United States dollar, ADB = Asian Development Bank, CIF ACT = Climate Investment Funds Accelerating Coal Transition, CFPP = coal-fired powerplant, COP = Conference of the Parties, DMC = developing member country, ETM = Energy Transition Mechanism, IP = investment plan, JETP = Just Energy Transition Partnership, JT = just transition, M = million, MDB = multilateral development bank, MOU = memorandum of understanding, NOL = no objection letter, SESA = strategic environmental and social assessment, SOE = state-owned entity, TA = technical assistance.

# Thank you!

For more information, visit:

[https://www.adb.org/what-we-do/  
energy-transition-mechanism-etm](https://www.adb.org/what-we-do/energy-transition-mechanism-etm)