

SIEW Thinktank Roundtable (27 October 2023)

Financing ASEAN Decarbonisation Roadmap Towards Carbon Neutrality

A joint presentation by the Energy Studies Institute and the ASEAN Centre for Energy



ASEAN Centre for Energy
One Community for Sustainable Energy

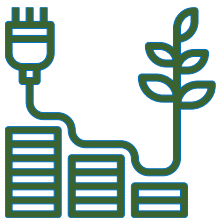
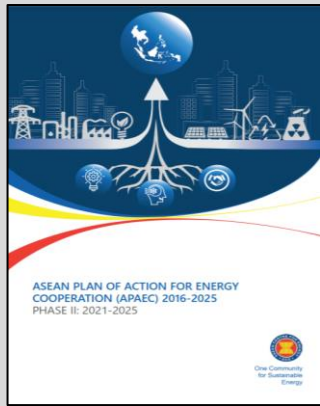
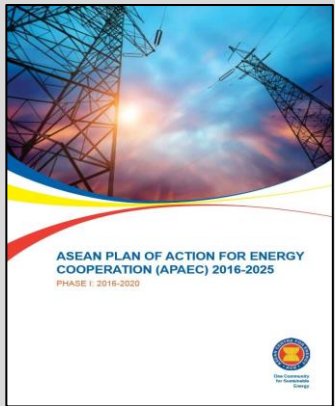
Kim Jeong Won

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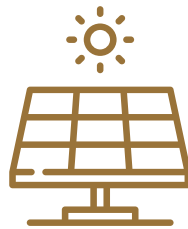
ASEAN Plan of Action for Energy Cooperation (APAEC)

APAEC is **a series of guiding policy documents** to support the implementation of **ASEAN multilateral energy cooperation** to advance regional integration and connectivity goals.

Serves as a blueprint for better energy cooperation under seven (7) programme areas in achieving the goals of the **ASEAN Economic Community (AEC)** pillar of the ASEAN Community.



To **reduce energy intensity** by 32% by 2025 and encourage EE&C efforts, especially in transport and industry



To **increase the share of RE** to 23% in TPES and 35% in installed power capacity by 2025

- ASEAN Power Grid
- Trans-ASEAN Gas Pipeline
- Coal and Clean Coal Technology
- Energy Efficiency and Conservation**
- Renewable Energy**
- Regional Energy Policy and Planning
- Civilian Nuclear Energy

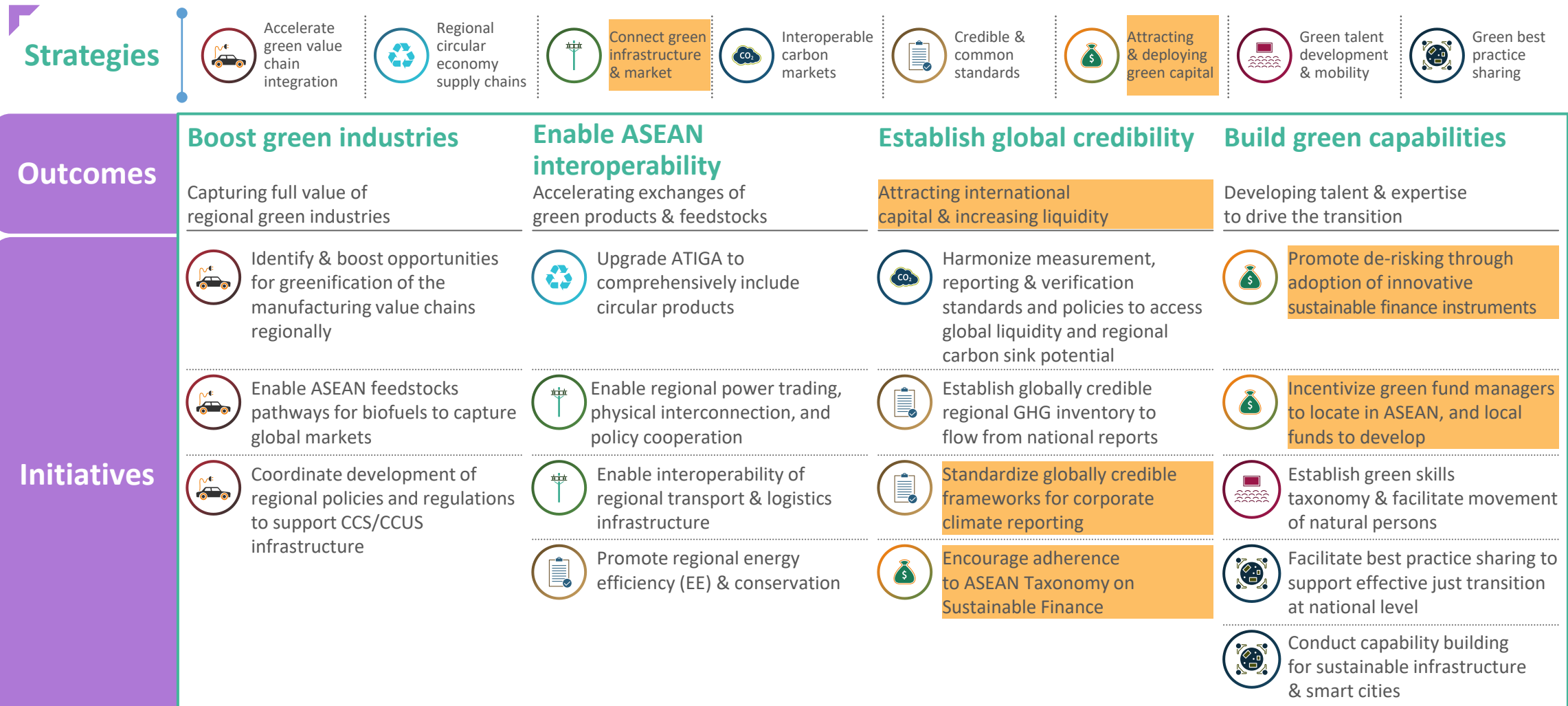
Attracting Clean Energy Investment in ASEAN

- To address the importance of attracting energy investments and sustainable financing for ASEAN
- To identify key priority areas in building up regional capabilities on energy investments and financing
- To provide insightful guidelines for ASEAN regulators and policymakers to design and make better decisions regarding investment policy in the energy sector

ASEAN Plan of Action for Energy Cooperation (APAEC) 2016- 2025 Phase II: 2021-2025

- **Aspirational RE Targets by 2025**
 - 23% RE share in Total Primary Energy Supply (TPES)
 - 35% RE share in installed power capacity
- **Energy Investment**
 - Programme Area No. 1: ASEAN Power Grid (APG), Action Plan 1.3: **Promote cross-border technical skills and knowledge transfer as well as promote financial investment for APG projects**
 - Programme Area No. 6: Regional Energy Policy and Planning (REPP), Action Plan 5.1: **Develop a Roadmap for 2021-2025 to enhance capabilities in enabling regulatory environments to attract investment in energy infrastructure and technologies**

ASEAN Strategy for Carbon Neutrality



Source: ASEAN Secretariat (2023)

Investment Needed to Meet the Targets

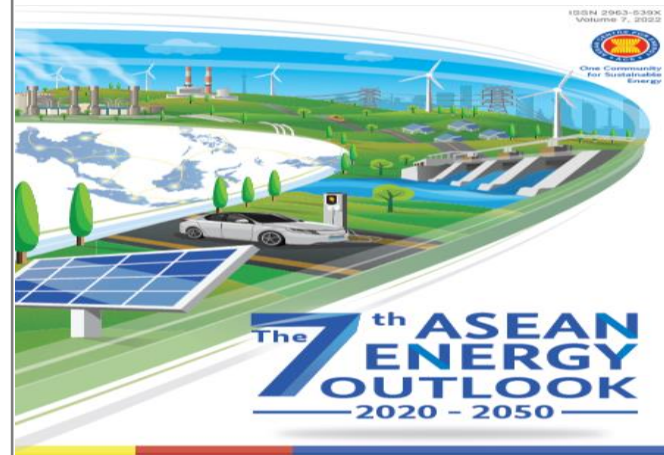
IRENA & ACE (2016)

- To reach the 23% target, ASEAN would need to attract investment of **US\$27 billion** in renewable energy generation and infrastructure **every year between 2014 and 2025**.



ACE (2022)

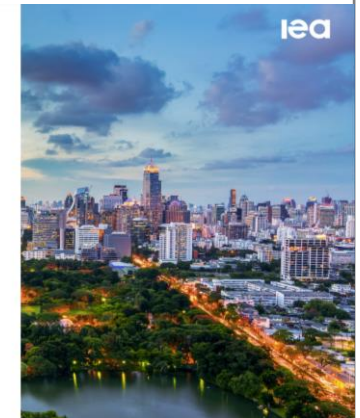
- Approximately **US\$160 billion** will be required for RE for **2021-2030 period**.
- In the long run (**2031-2050**), an **additional investment of US\$400 billion** is required.



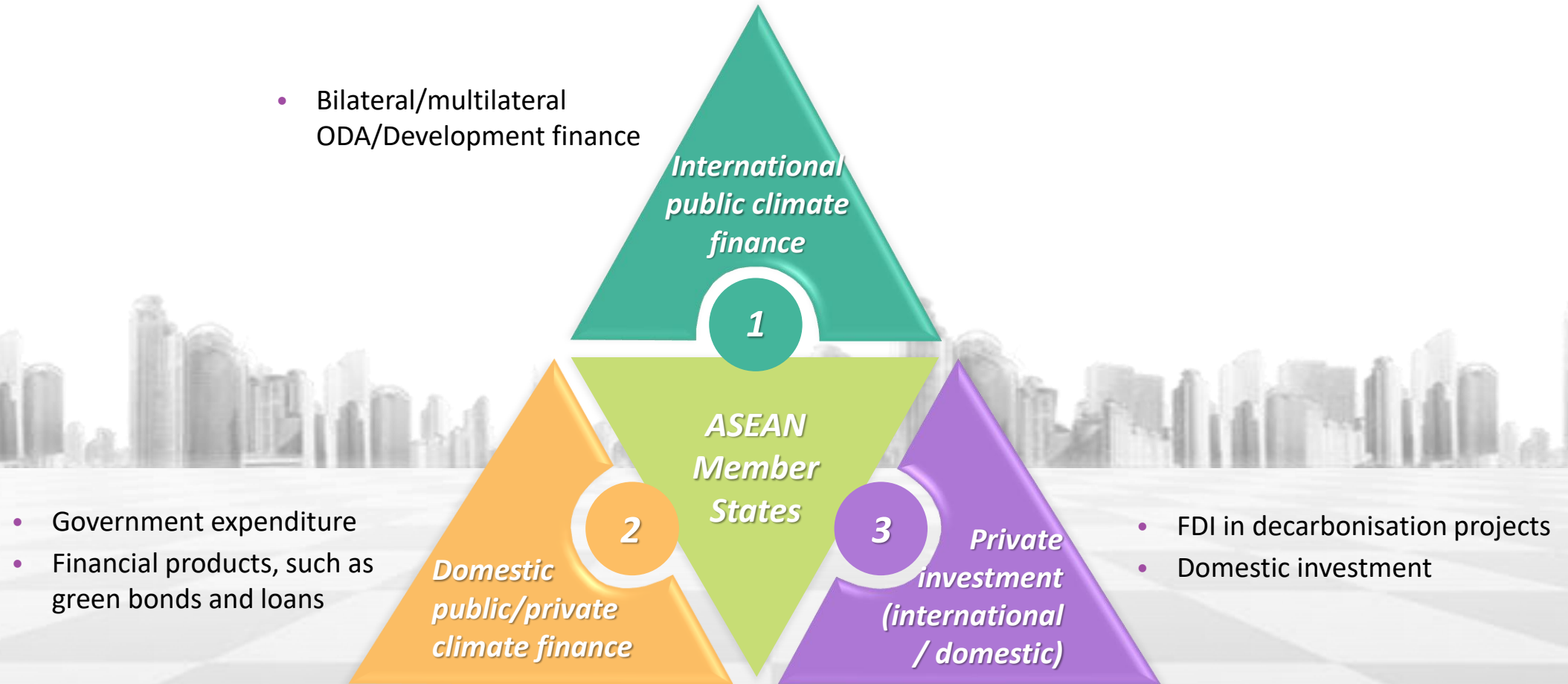
IEA (2022)

- Energy investment in Southeast Asia reaches an **annual average of US\$130 billion by 2030** in the STEPS and it reaches **US\$190 billion** in the SDS.

Southeast Asia
Energy Outlook 2022

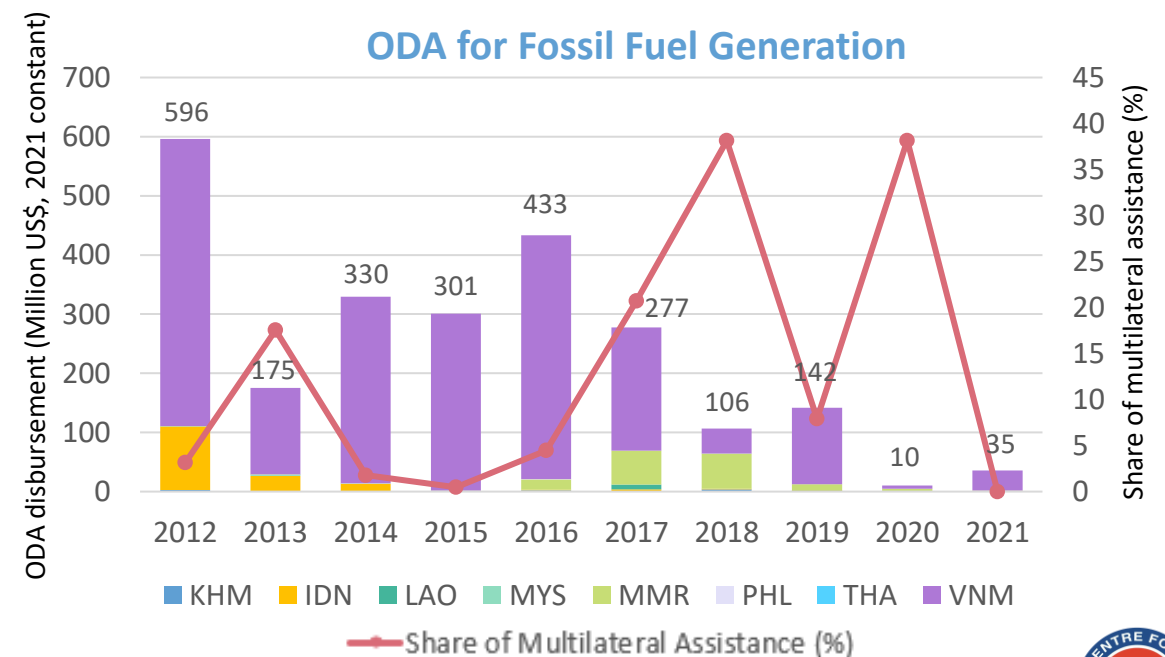
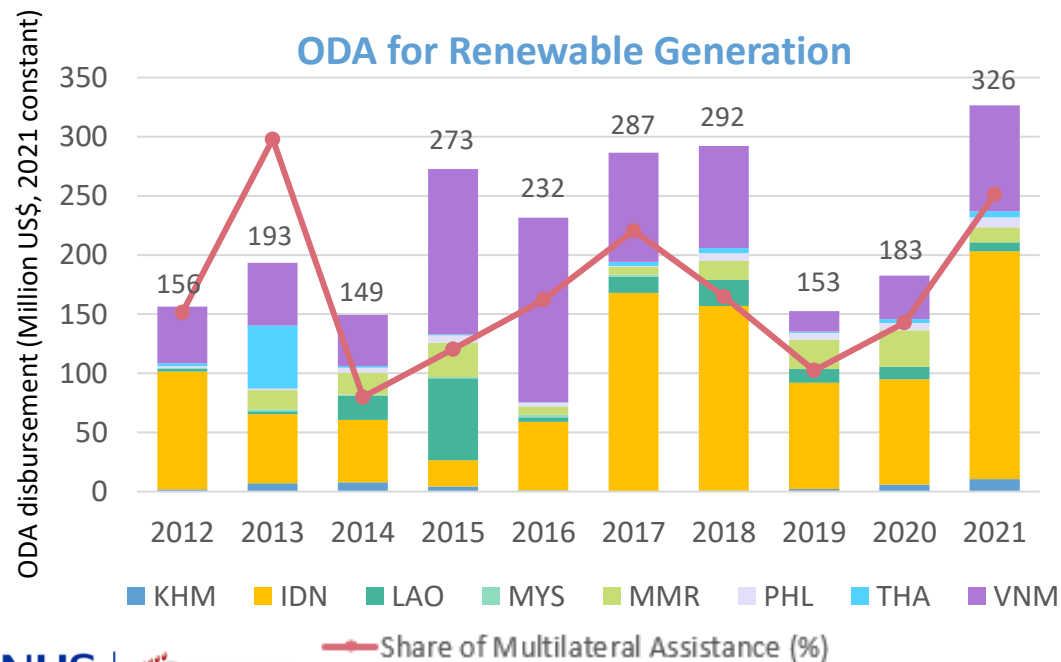


Financing Decarbonisation Projects in AMS



Power Sector ODA for AMS

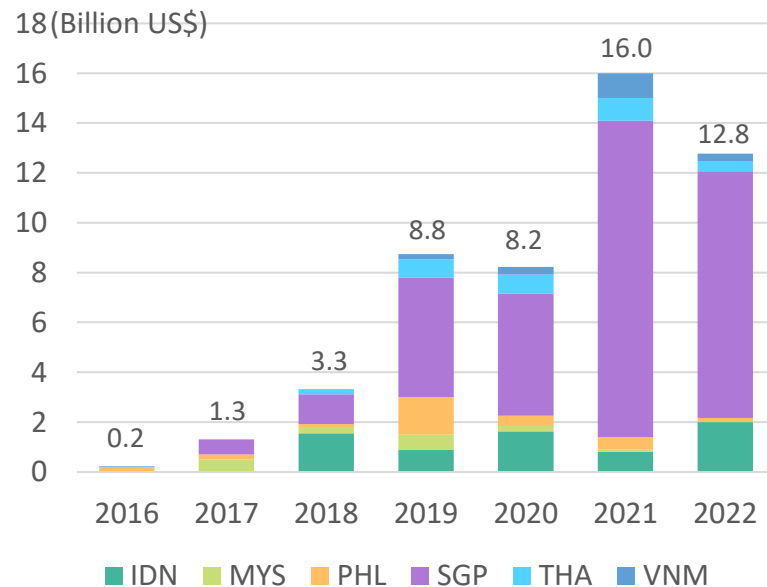
- **US\$2.24 billion have been disbursed** to renewable energy generation projects in AMS between 2012 and 2021.
 - Bilateral ODA (US\$1.6 billion, 69%) has outweighed multilateral ODA (US\$0.7 billion, 31%).
 - **Indonesia (44%) and Vietnam (34%)** have been the most significant recipients.
 - **Hydroelectric generation and geothermal generation** were two major RE technologies.
- While RE ODA shows a gradually increasing trend except for 2019-2020 period, ODA for fossil fuel generation seems to decline.



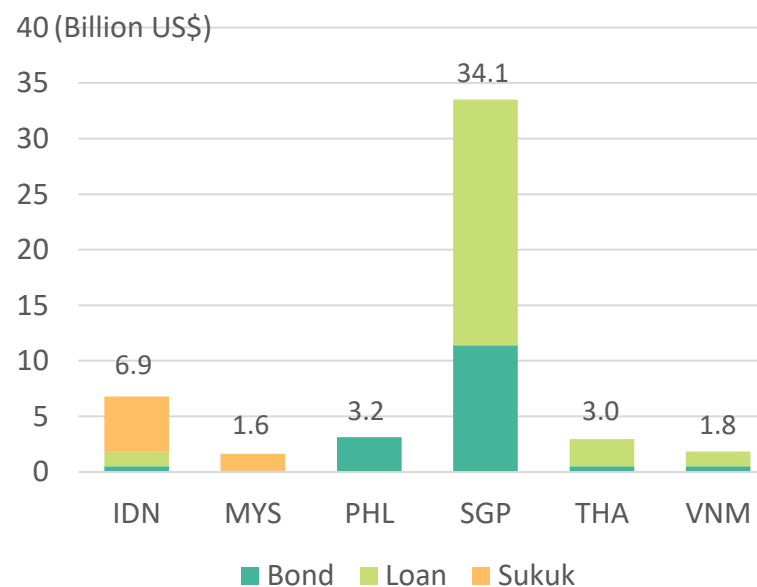
Green Bonds & Loans in AMS

- Green debt issuance, including green bonds, loans, and sukuk, was US\$12.8 billion in 2022. The **cumulative amounts between 2016 and 2022 reached US\$50.6 billion**.
- Almost 80% of proceeds have been allocated to green building and energy projects.
 - In Singapore, approximately 75% of proceeds have been used for green building projects.
 - In Malaysia, Philippines, Thailand and Vietnam, more than 50% of proceeds have funded energy projects.

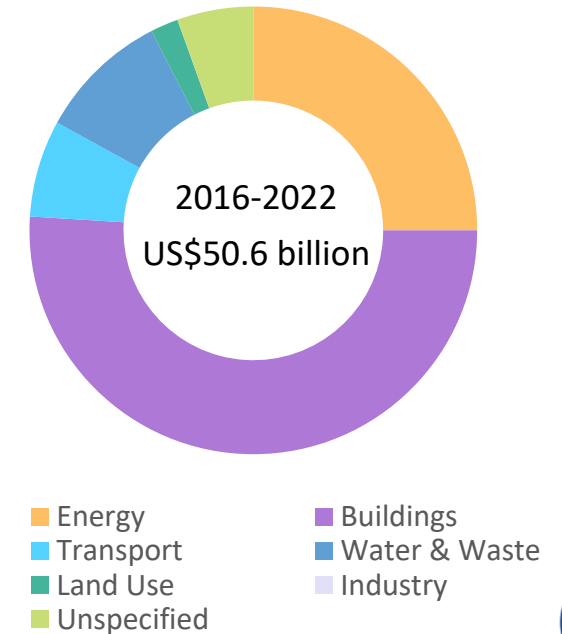
Green Bond & Loans (Amount Issued)



Type of Debts (Cumulative)



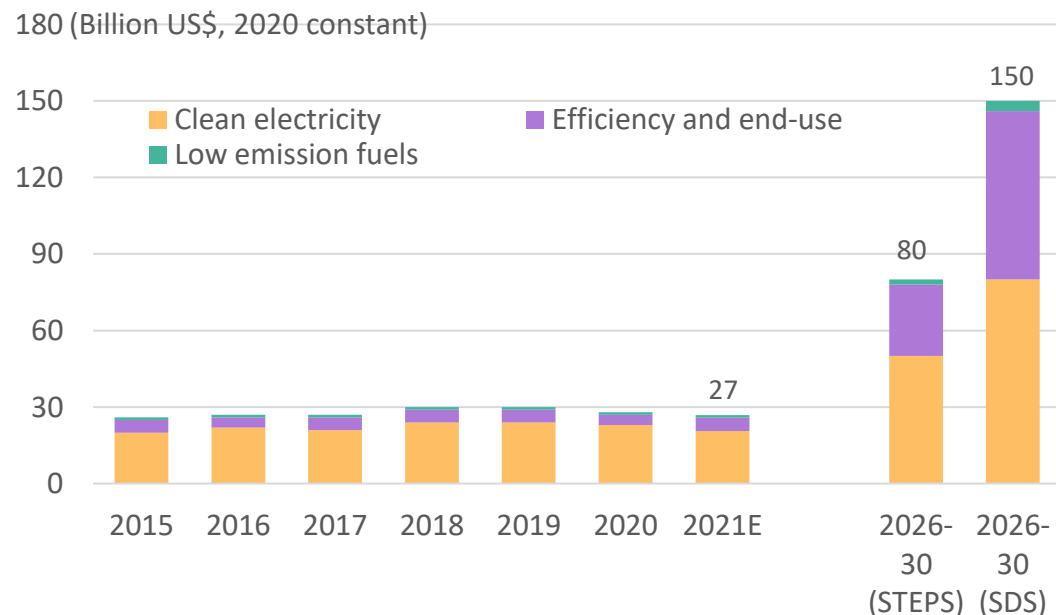
Use of Proceeds (Cumulative)



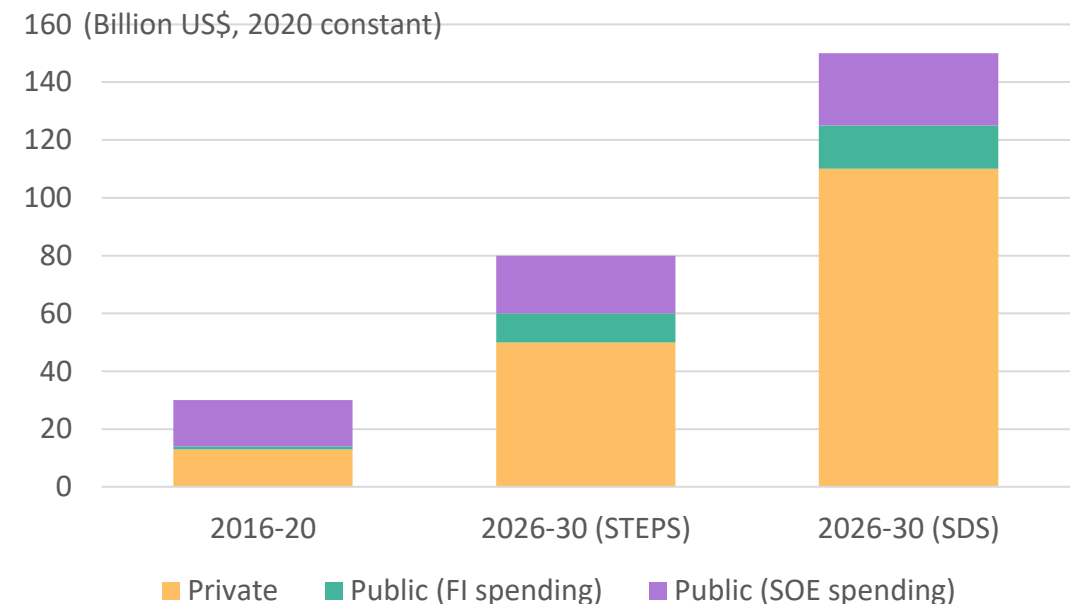
Clean Energy Investment

- Clean energy investment in Southeast Asia in 2021 was estimated at US\$27 billion.
- Annual clean energy investment has never exceeded US\$30 billion but has to increase to US\$150 billion to comply with SDS.
- Clean energy investments in Southeast Asia have relied heavily on public sources of finance but in the SDS **over 70% of investments are required to come from private capital.**

Clean Energy Investment in ASEAN



Sources of Finance for Clean Energy Investment



Source: IEA (2022).

In This Roundtable

- Discuss the current and future energy investment landscape.
- Explore the solutions to bridge the gap between the current trajectory and the targets, including
 - Identifying innovative financial sources;
 - Setting the budget allocation; and
 - Building strong collaboration between the public with the private sector and international funding.



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THANK YOU

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