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The background features a collage of three images: solar panels on the left, a high-voltage power transmission tower in the center, and a wind farm on the right. A large, stylized graphic of overlapping triangles in yellow, orange, blue, and green is positioned in the foreground, partially overlapping the images.

# **ASEAN Power Grid: Regional Integration & Connectivity**

**UK-ADB Business Connect: Advancing Partnerships through Infrastructure and Innovation**

**ADB**

13 January 2026

# Regional interest in the ASEAN Power Grid is growing, given a range of potential benefits

## 1. Powering ASEAN’s Future

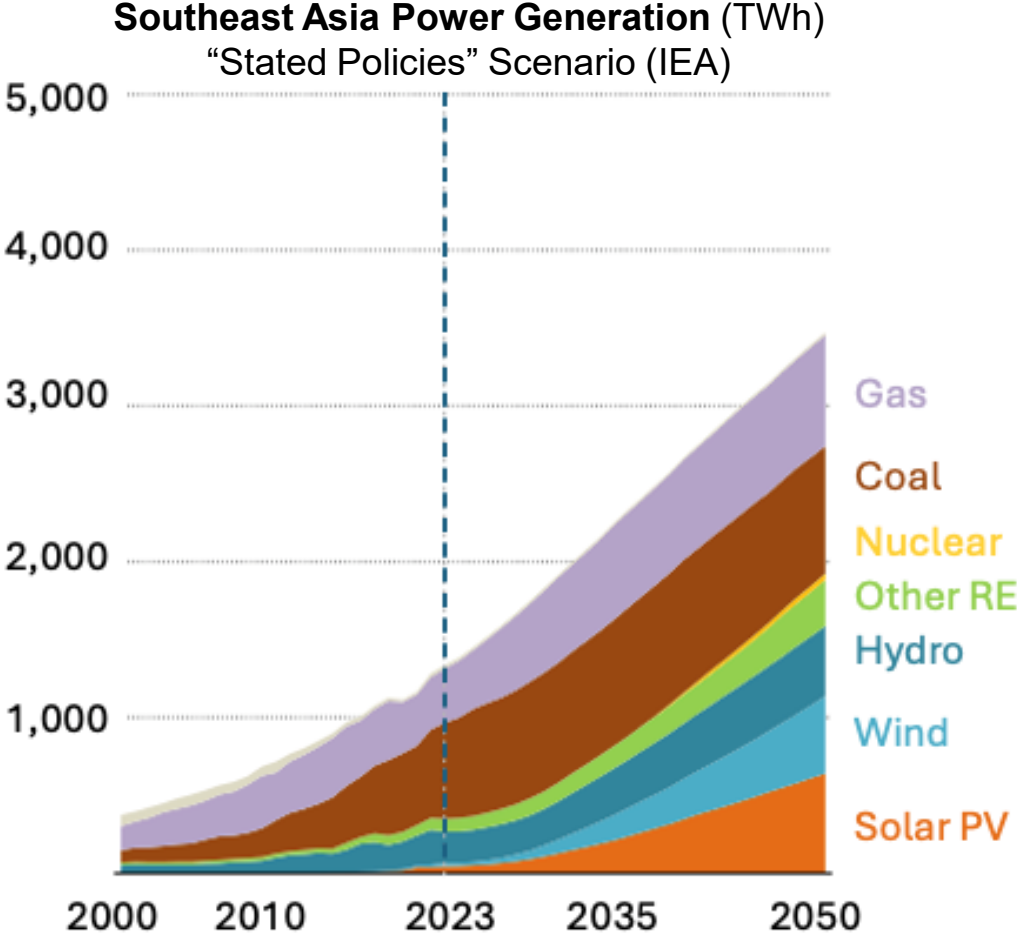
- Energy demand is rising rapidly —a stronger, smarter grid is critical.
- ASEAN Leaders’ recognition → commitment to developing a fully integrated grid by 2045 for energy security.

## 2. Reliable and Affordable Power

- Grid interconnection lowers cost of power.
- Strengthen system resilience against demand shocks and supply risks.

## 3. Driving Competitiveness & Climate Goals

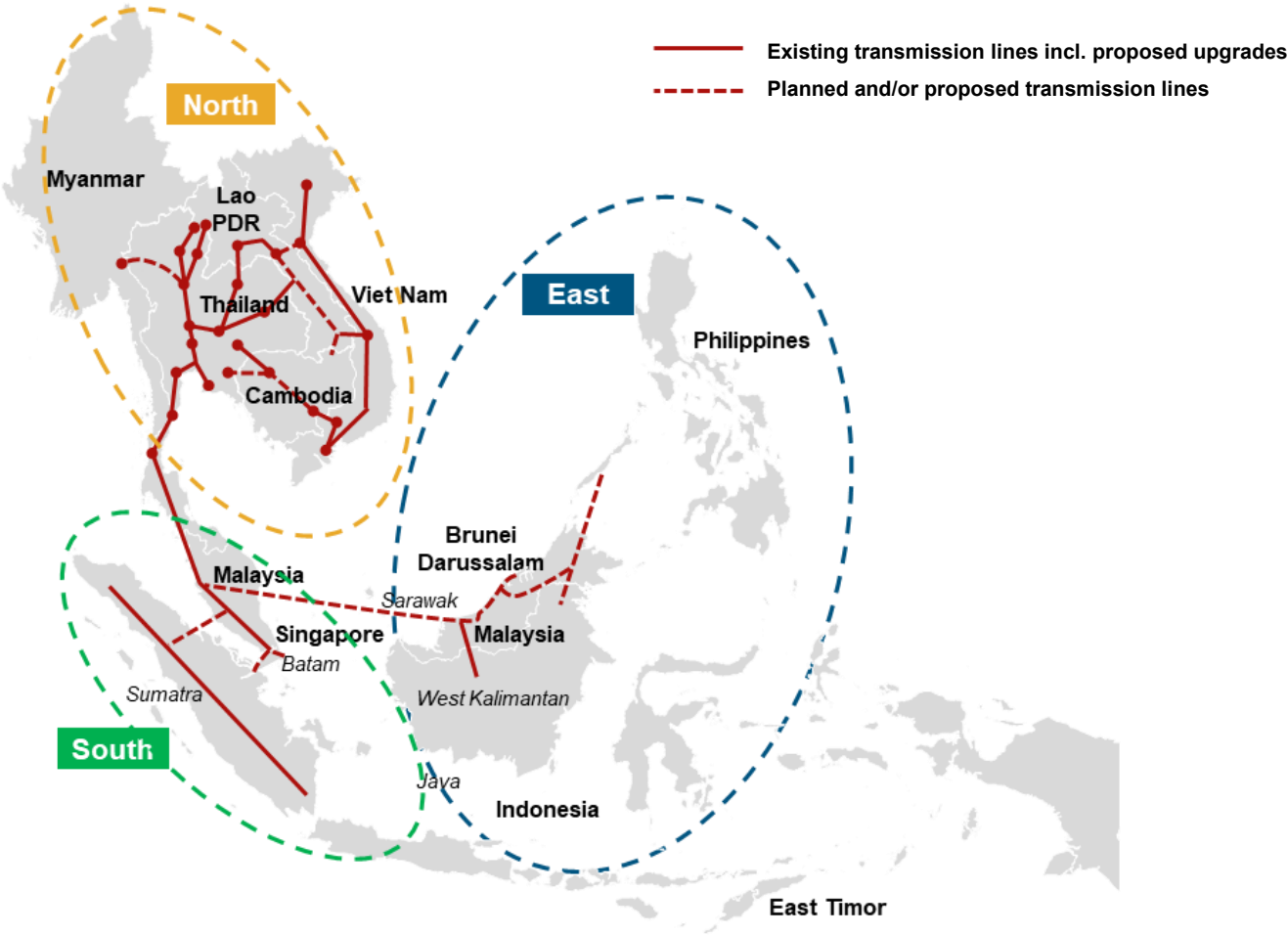
- Position ASEAN as a clean energy hub for industry and digital growth, fueled by clean energy.
- Enhance competitiveness → lower cost for exports, FDI to increase jobs and sustain growth.
- Deliver net-zero commitments by decarbonizing the region’s energy system.



Source: International Energy Agency. Southeast Asia Energy Outlook 2024

# The ASEAN Power Grid is the region’s flagship program to promote economic integration and growth, energy security, and energy transition

1. ASEAN Interconnection Masterplan Study (AIMS) III identified **18 priority interconnection projects**—to more than double interconnection capacity today from **7.7 GW** to **17.6 GW** by 2040
2. Of the 18 identified interconnections, **9 are existing** but may require upgrades, mostly with bilateral arrangements.
3. The 18 interconnection investment projects alone need **\$16 billion** by 2040 (on NPV basis) but many additional projects are already under consideration incl.:
  - Cambodia–Singapore
  - Indonesia–Singapore
  - Viet Nam–Singapore
  - Sarawak–Singapore
4. Total transmission investments in ASEAN (cross-border and domestic) will likely require over **\$100 billion** by 2045.

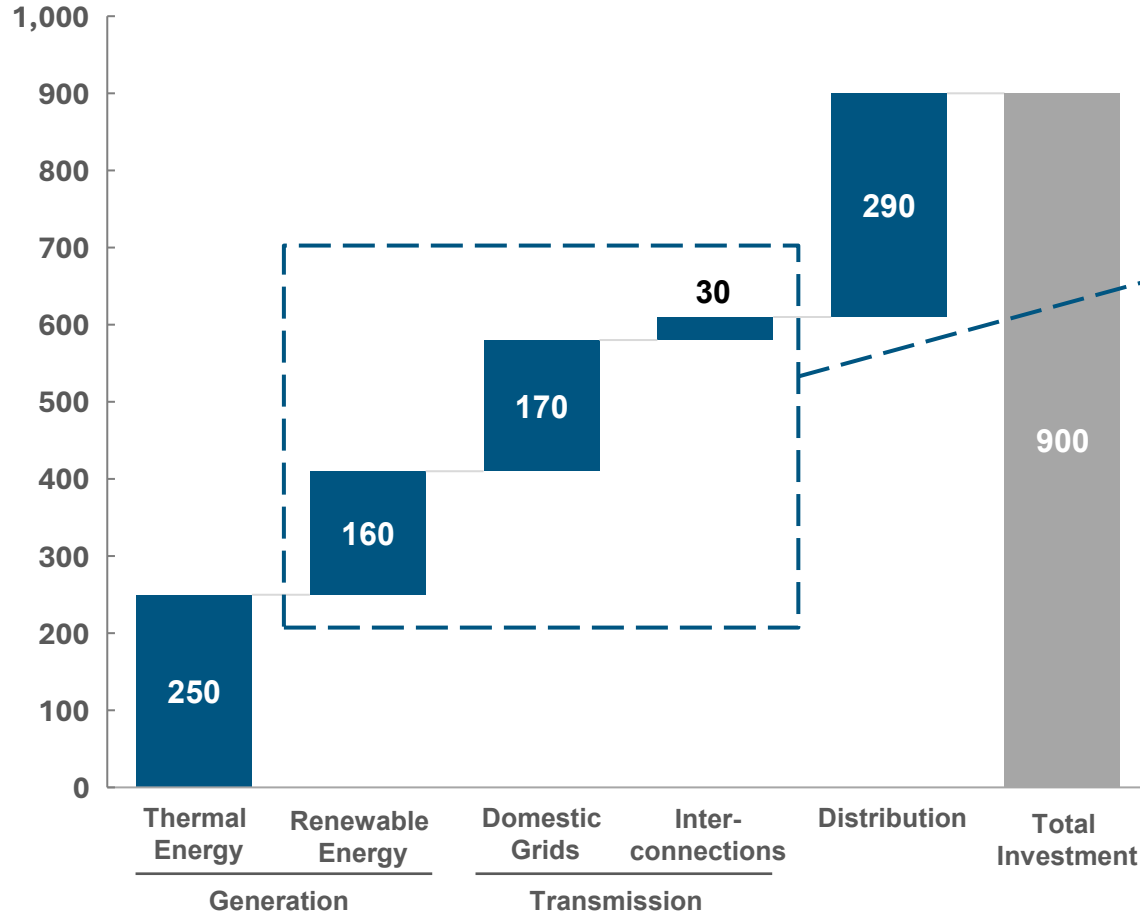


The ASEAN Power Grid is “central to achieving a more resilient and sustainable energy future for ASEAN”  
 — Chairman's Statement,  
 46th ASEAN Summit (26 May 2025)

Source: Lao PDR's Country Presentation (2023), ASEAN Energy Center Presentation (2023), Regional Grid Code Study, APPEC, IEA.

# Realizing the APG will require >\$100 billion of investments over the next 20 years...

**SE Asia Investment Needs for Electric Power, 2025-2045**  
(\$ billion)



**>18**

cross-border projects

**>24.5 GW**

interconnecting capacity

**6**

future subsea interconnections\*\*

- The “**APG space**” consists of grid interconnections and a portion of each of RE generation and domestic grids, together >\$100B during 2025-2045.
- The timing of APG projects depends on a range of factors, including planning decisions, policy evolution, energy market dynamics, and availability of financing.
- ADB is engaging across these areas with lending, advisory, and TA support.
- ADB’s \$10B APG ambition includes the full range of projects in the “APG space”, as well as policy advice (PBLs).

\*Shows midpoints of scenario ranges based on renewable energy penetration rates.  
Source: ADB estimate, consultant analysis

Source: ASEAN Centre for Energy; Projects from ASEAN Interconnection Masterplan Study (AIMS) III Report. 2024; \*\*Subsea project initiatives

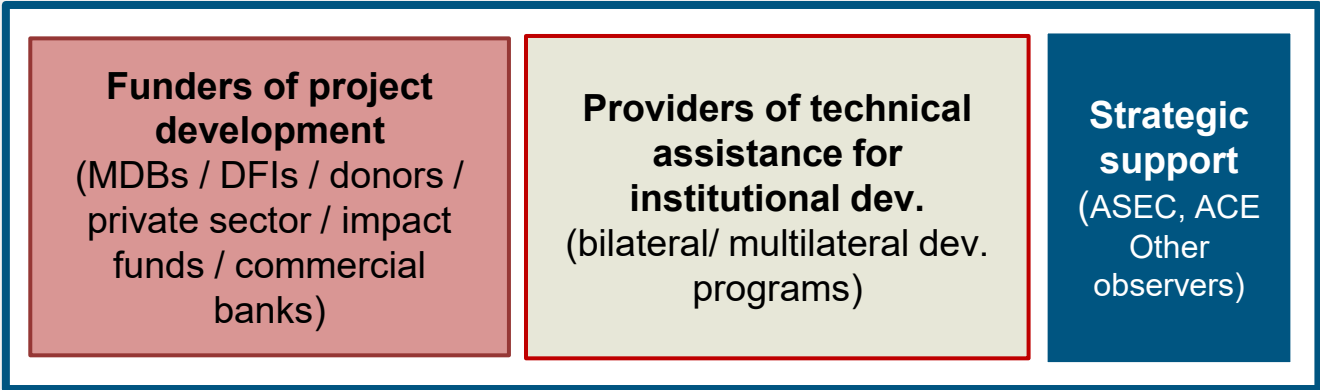
# To help mobilize capital for the APG, ASEAN, ADB, and the World Bank have launched the ASEAN Power Grid Financing Initiative (APGF)

## 1 APGF Working Group



- **Align energy, economic, and financial cooperation under respective ASEAN tracks.**
- **Analytical support to facilitate project identification and scoping of support.**
- **Market soundings and capacity building.**
- **Report to ASEAN on progress of APGF.**

## 2 Partnership for ASEAN Connectivity on Energy (PACE)



- **Coordination and alignment** across fragmented development / commercial financing support landscape.
- **Discuss support requests** from utilities/sponsors.
- **Enhance visibility of development and commercial funding offers.**
- **Encourage new financing partners** to engage on the APG agenda.
- **Identify common preparation and bankability challenges** for projects.

## 3 Identification and mobilization of financing across the project cycle—from feasibility to capex stage—using the range of tools from the PACE community.

# Singapore Energy Market Authority (EMA)



## Singapore's Energy Transition – 4 switches

From 95% LNG for electricity (2019) to Net Zero (2050) through solar generation, regional interconnections, future low carbon fuels and energy efficiency

## Regional Interconnections – 6GW by 2035

- Conditional Awards – Early-stage clearance - 5 in number – 5.35GW from Cambodia, Viet Nam, Indonesia, Australia
- Conditional Licenses – More advanced on readiness - 5 in number - 2GW (All Indonesia)
- Singapore takes ASEAN Chair in 2027

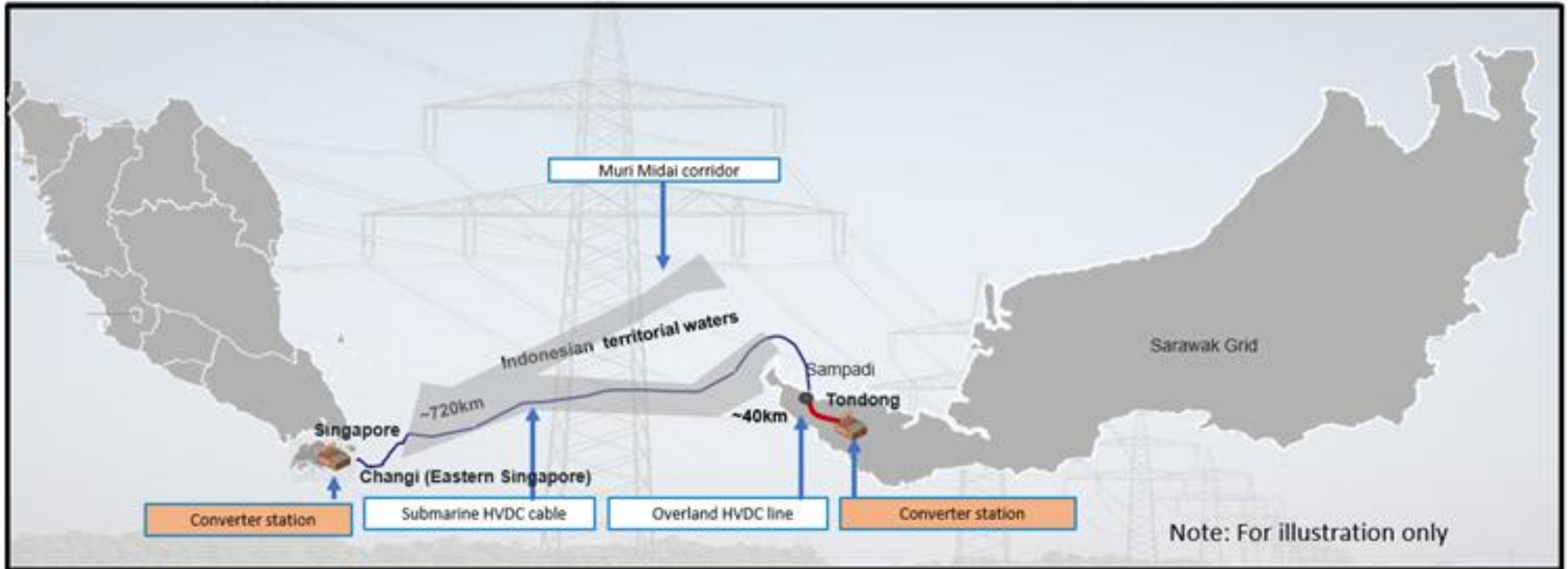
## ADB Support

- **Upstream** - One ADB team (SGO, SERD, SD1-ENE, OMDP, OGC, and ERDI) helps EMA engage with potential private partners, improve bankability and in discussions with potential licensees.
- **Downstream** – Potential PSOD financing

*"In July 2023, EMA and the Asian Development Bank (ADB) signed an MOU to pave the way for the development of renewable energy generation across the ASEAN region and support the establishment of the ASEAN Power Grid. The MOU empowers ADB to utilise its full suite of products and support ASEAN countries and project sponsors in implementing and managing the risks of clean energy projects in the region" – [EMA Annual & Sustainability Report 2023-2024](#)*



# ADB's Support in ASEAN Cross-Border Energy Projects - Malaysia



MOU exchange in September 2025 - TA Support to Sarawak utility on safeguard planning and electrical modeling studies

# Regional Connectivity Fund for Energy in SEA being established to prepare and de-risk APG-related projects

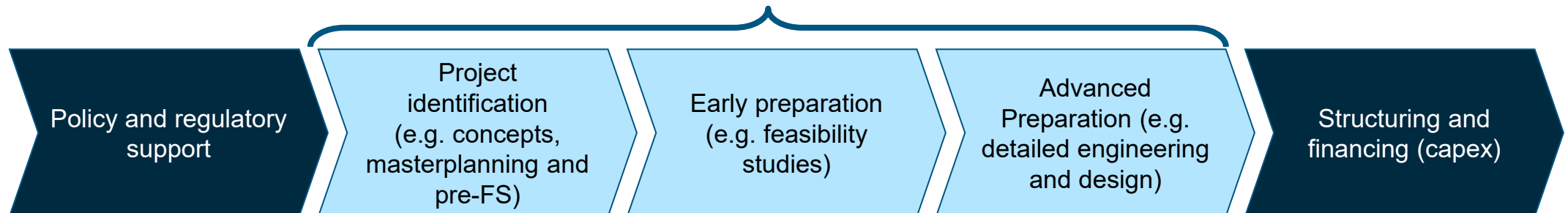
Key features of the RCF:

- **Flexibility and speed of deployment**, to align with private sector and market practices.
- **Balanced approach** across cross-border and national connectivity.
- **Catalytic support for project preparation**, to accelerate time from feasibility to financing.
- Promote **financing partnerships** through ASEAN mechanism (e.g. ASEAN Power Grid Financing initiative).



- Scoping, pre-feasibility, and feasibility studies.
- Technical and engineering support (e.g. grid impact studies and production cost modelling).
- Environment and Social Impact Assessment (ESIA).
- Structuring and documentation support.
- Front-End Engineering and Design (FEED).
- Targeted regulatory TA and permitting TA (on-shore and off-shore).
- Commercial and legal preparation.
- Procurement support and financing strategies.
- Financing strategies and implementation.
- Transition and/or climate impacts assessment (using prevalent taxonomies).

*Focus of the RCF Multipartner Trust Fund*



# Brunei-Indonesia-Malaysia-Philippines (BIMP) interconnection masterplan study: Proposed Timeline and Resources

In principle approval from the BIMP-EAGA Cluster for the proposed BIMP masterplan study	January – March 2026
Procurement of Consultant	May 2026
Mobilization of Consultant	September 2026
Inception report	October 2026
Draft Final Report	January 2027
Final report	February/March 2027
BIMP –EAGA endorsement	April-June 2027

## Proposed consultant key position:

- Team lead/Senior Power System Engineer
- Senior power/high voltage transmission engineer
- Lead power market and regulatory Specialist
- Senior commercial structuring specialist
- Senior data base and analysis expert



**Thank you.**

**Mr. Len V. George**

Principal Energy Specialist  
SD-1-ENE, Singapore Office  
lgeorge@adb.org

**Ms. Architrandi Priambodo**

Senior Energy Specialist  
SD-1-ENE, Singapore Office  
apriambodo@adb.org