## 24 MAY, 2025

### THE ASEAN ASEAN'S POWER GRID: UNLOCKING NET-ZERO POTENTIAL



The Star, Malaysia

# THE ASEAN POWER GRID: UNLOCKING **ASEAN'S NET-ZERO POTENTIAL**

FIRST proposed in the late 1990s, the Asean Power Grid (APG) was envisioned as a long-term solution to energy security and sus-tainability through multilateral

tainability through multilateral electricity trading. Today, only seven out of the 16 planned interconnections are operational. The APG is the key intercon-nection of power systems for Asean countries to trade cross-border electricity. On paper, it's an ambitious plan. In practice, it faces considera-ble headwinds – not only from the lack of technology or invest-ment, but also from fragmented regulatory regimes, uneven polit-ical will and deep-rooted con-cerns about sovereignty and cerns about sovereignty and national energy security. Countries at different stages of

Countries at different stages of economic development and ener-gy transition often hold contrast-ing views. Energy-exporting countries worry about undervaluation of their power exports. Energy-importing countries besitate to rely on neighbours for something as strategic as electricity. "To unlock the full potential of the APG, a coordinated, trust-based approach is needed. One that embraces regional diversity but works toward common goals," says Solarvest executive director and group chief execu-tive officer Davis Chong.

## Making the APG a reality: four strategic imperatives

Strategy 1: Harmonise regula-tory and market frameworks Asean countries must develop shared technical standards, grid codes, pricing mechanisms and

## SOLARVEST

regulatory norms to enable seamless cross-border power exchange.

exchange. Is it being done? Partially. The Asean Power Grid Consultative Committee (APGCC) has initiated discussions and studies on regu-latory harmonisation, with some technical standards and bilateral power trading agreements in place.

place. This includes the ongoing policy dialogues under the Asean Plan of Action for Energy Cooperation (APAEC) Phase II (2021-2025), and a sub-pro-

(2021-2025), and a sub-pro-gramme on regional power mar-ket development. However, some governments find it challenging to adjust their domestic electricity subsidies or tariff to align with regional trad-ing models; some may lack the resources to participate fully. "Asean's energy future depends on how quickly public-private trust is built. "When industry is invited to co-create, not just implement, we

co-create, not just implement, we see faster results and deeper regional alignment. What's missing is a structured platform for continuous engagement between governments and private devel-opers," he said.

Strategy 2: Institutionalise pub-lic-private collaboration Governments must establish transparent and structured platforms to involve industry consultation as early as grid planning and policy design, along with formal mechanisms that enable



Chong: To unlock the full potential of the Asean Power Grid, a coordinated, trust-based approach is needed

When industry is invited to co-create, not just implement, we see faster results and deeper regional alignment.

energy authorities and private companies to co-invest in and co-develop clean energy infrastructure

Private sector players like Private sector players like Malaysia's Solarvest, with proven experience in cross-border solar development, are already collab-orating with national and region-al institutions to fast-track clean infrastructure deployment across South-East Asia. Their participation in clean energy initiatives aligned with the Asean Interconnection Masterplan exemplifies how pub-lic-private partnerships can be effectively operationalised at scale.

With their technical expertise, financial strength and operation-al agility, these private compa-nies can significantly accelerate the implementation of the Asean er Grid.

Strategy 3: Prioritise regional grid modernisation and digital-isation Advanced energy management systems like smart grids and Al-driven monitoring are key to balancing intermittent renewa-bles and enabling reliable cross-border power trading

balancing intermittent renewa-bles and enabling reliable cross-border power trading. This is an area where private companies can provide valuable solutions through innovation and operational experience. Countries like Singapore, Malaysia and Thailand are advancing smart grid projects and integrating distributed ener-gy systems. However, regulatory bodies in countries like Cambodia, Myanumar or Laos may lack the resources or technical capacity to participate fully, largely due to cost and infrastructure gaps. Tourties with limited fiscal space often struggle to invest at scale, resulting in fragmented digital platforms that complicate regional integration. Solarvest, which has invested and brought clean energy exper-tise to various Asean country showcases how successful pub-lic private partnerships that oridge the investment and capa-

lic-private partnerships that bridge the investment and capability gaps.

Strategy 4: De-risk cross-border power projects through bilater-al/multilateral mechanisms "Policy without execution leads to bottlenecks. That's where regional developers and clean energy investor like us can play a critical role to translate high-lev-el energy plans into bankable. el energy plans into bankable, buildable clean infrastructure,"

says Chong. The absence of centralised Asean mechanism or standardise

Asean mechanism or standardise project finance tools continues to limit project bankability. Clean energy projects often lack long-term offtake agree-ments, regulatory clarity or sov-ereign guarantees – deter inves-tors. Hence, feasibility studies and pilot projects such as the Asean Interconnection Masterplan Study (AIMS) III and the Laos-Thailand-Malaysia-Singapore (LTMS-PIP) pilot

projects are important. Countries are more likely to participate when risks are miti-gated. Institutions like the Asian Development Bank (ADB) and the Asean Infrastructure Fund the Asean Infrastructure Fund (AIF) can help de-risk early-stage cross-border power infrastruc-ture via blended finance, sovereign guarantees or risk-sharing instruments.

## Malaysia: A blueprint worth studying

Asean needs not just cross-bor-der grids, but cross-border knowledge transfer. Malaysia

knowledge transfer. Malaysia offers a compelling case study of how enabling policies and private sector engagement can move the needle on clean energy. The National Energy Transition Roadmap (NETR) outlines clear investment pathways toward a greener grid, including large-scale solar, hydrogen develop-ment and energy efficiency. Under the Corporate Renewable Energy Supply Scheme (CRESS), it enables third-party grid access and

Scheme (CRESS), if enables third-party grid access and serves as a potential catalyst for cross-border electricity trading. Additionally, Malaysia has suc-cessfully implemented cross-bor-der energy exports, such as to Singapore through the LTMS interconnection. This serves as a proof-of-con-cept that regional energy trading is technically viable and political-ly achievable.

## A decade of promise, need of delivery

The APG is not simply about building power lines across bor-ders. It is about building trust, interdependence and a shared commitment to Asean's sustaina-ble future. For Asean to rise as a cli-mate-resilient economic bloc, governments, industries and communities must sit at the same table as collaborators for the delivery of the APG.

## About Solarvest Holdings Bhd

Solarvest is a regional clean Solarvest is a regional clean energy infrastructure developer, with presence across eight Asia-Pacific countries, including Malaysia (\*HQ\*), Singapore, Vietnam, Taiwan, Indonesia, Thailand, Brunei, and the Philippines. Recognised for its leadership in the solar industry. Solarvest has

Recognised for its leadership in the solar industry. Solarvest has expanded its expertise to support clean energy transformation, offering a comprehensive suite of advanced solutions including

of advanced solutions including Energy Storage, Energy Efficiency, Renewable Energy Certificates, and more. To date, Solarvest has devel-oped more than 2,000 MWp of projects across the region. Solarvest is listed on the Main Market of Bursa Malaysia.

For more information, log on to https://solarvest.com.



The Asean Power Grid was first proposed in the late 1990s to enhance energy security and sustainability via lateral electricity trading