30 MAR, 2026
Asean Power Grid to drive the region's next chapter
The Edge, Malaysia

Asean Power Grid to drive the region's next chapter

By Danial Dzulkifly

Southeast Asia is entering the most consequential phase of its energy history. Electricity demand in the region grew more than 7% in 2024, nearly double the global average, and is set to double again by 2050, driven by rapid urbanisation, industrial growth and rising living standards, according to the International Energy Agency.

The question is no longer whether Southeast Asia needs a regional power grid: It is whether the political will exists to build one fast enough.

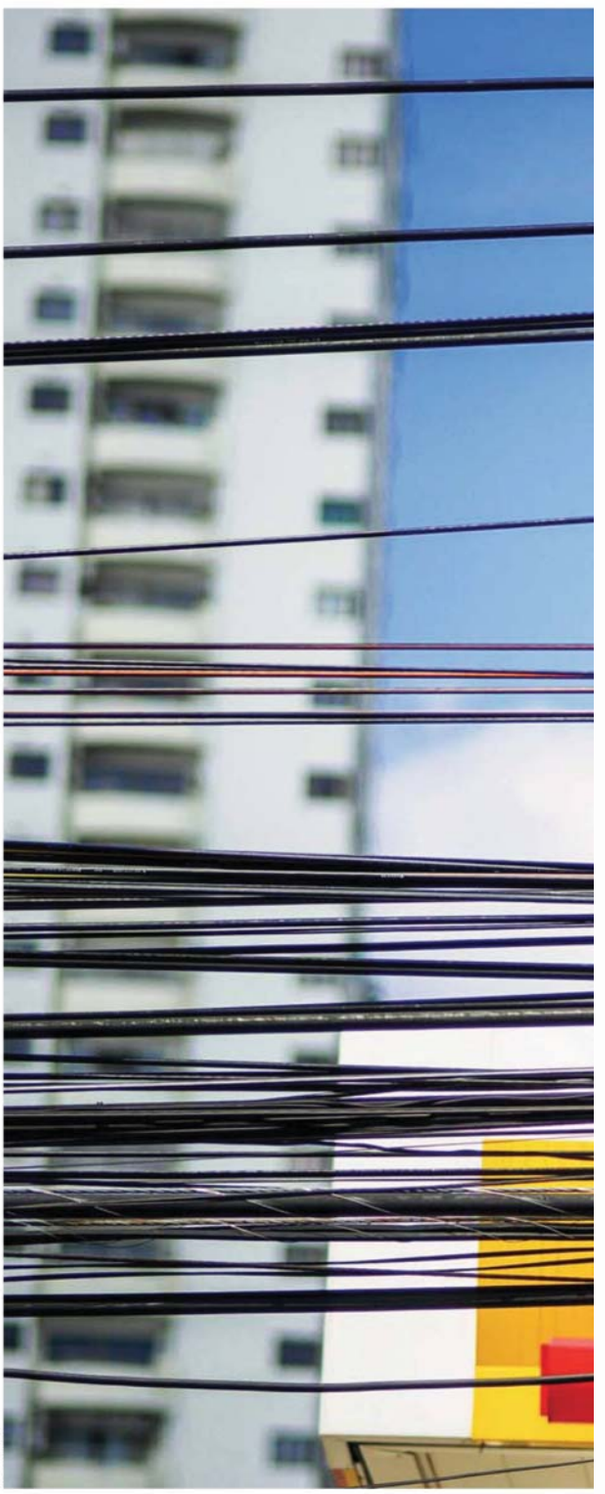
For Nadhilah Shani, manager of the Power Generation and Interconnection department of the Asean Centre of Energy (ACE), that question has a concrete answer and a deadline.

"The newly endorsed Asean Power Grid (APG) Enhanced Memorandum of Understanding (MoU) pushed the Asean member states to promote greater regional energy security and sustainability through the establishment of clearer mandates, responsibilities and coordination mechanisms among the APG-related bodies," says Nadhilah.

The MoU, signed in Kuala Lumpur in October 2025, revived a 2007 agreement that had quietly lapsed in 2022 and established the institutional architecture the grid had long lacked, bringing together policymakers, regulators and power utilities under a single coordinating framework for the first time.

At the same meeting, ACE was designated as the APG Secretariat, which is the coordinating body responsible for turning the agreement into action. In January 2026, senior energy officials from across the bloc met in Bohol, the Philippines, to lock in the year's priorities, including the country's key deliverables on the grid.

The technical road map guiding that work is ACE's Interconnection Masterplan Study, now in its third phase. The first two phases mapped out the region's renewable energy



A local utility worker stringing power lines in Bangkok ... Much of the city's electricity is generated in Laos and Myanmar.

REUTERS

30 MAR, 2026

Asean Power Grid to drive the region's next chapter

The Edge, Malaysia

potential and identified priority connections.

The third, known as AIMS III, wrestles with the harder questions of how to price electricity crossing borders, harmonise grid standards and build the market rules that the region needs.

The conclusions point to a step-by-step approach, Nadhilah says, which is the only realistic path, given how differently each member state's energy system is structured.

The financing challenge is equally sobering. ACE estimates that US$770.95 billion in investment will be required to build and operate well-connected electricity networks across the region by 2040.

To close that gap, Asean, ACE, the Asian Development Bank (ADB) and the World Bank jointly launched the APG Financing Initiative.

ADB has committed up to US$10 billion over the next 10 years, according to the Asean Secretariat, while a broader platform draws in commercial banks, donors and philanthropies to share the investment risk.

The project that best illustrates what multilateral power trade looks like in practice is the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP).

It started as a unidirectional flow of hydropower from Laos to Malaysia before it was extended to Singapore in 2022. Phase 1 was completed in 2024, having moved 266GWh of energy through a capacity of up to 100MW, according to ACE.

Phase 2 is now underway, doubling maximum capacity to 200MW across two simultaneous routes: from Laos through Thailand and Malaysia to Singapore; and directly from Malaysia to Singapore.

As at December 2025, Malaysia-to-Singapore transfers alone had reached 14.99GWh under Phase 2, according to ACE. Keppel Electric, the first entity licensed by Singapore's Energy Market Authority to import electricity, has had its licence extended for two years with import capacity doubled to 200MW, sustaining the steady flow of Laotian hydropower into the city-state's grid.

In January 2026, Electricité du Laos, Thailand's Electricity Generating Authority and Tenaga Nasional Bhd signed the Energy Wheeling Agreement for Phase 2, the binding operational commitment that transforms policy into delivery.

"The signing would enable the sale, transmission and purchase of electricity generated in Lao PDR to Singapore through Thailand and Malaysia using the existing interconnection facilities of respective countries," says Nadhilah.

"Based on mutual benefits and trust, the LTMS-PIP Phase 2 shall provide greater energy security for Asean, and at the same time provide economic benefits for hydropower-rich Lao PDR through strong regional energy cooperation."

A second corridor is emerging, this time via the sea. In May 2025, Vietnam, Malaysia and Singapore signed a joint development agreement to explore a submarine power cable carrying renewable electricity, primarily offshore wind, from Vietnam through Peninsular Malaysia's grid to Singapore.

Vietnam's revised Power Development Plan 8, launched in April 2025, targets 74% renewable energy installed capacity by 2050 through offshore wind, rooftop solar, battery energy storage systems and nuclear power, according to ACE.

If built, the submarine cable would be the APG's first subsea link designed from the outset as a clean-energy export corridor.

Malaysia is central to both corridors. It serves as the transit country for Laotian hydropower heading to Singapore and as the likely landing point for the Vietnamese offshore wind cable, a geographic position that makes it the connective tissue between mainland Southeast Asia and the maritime corridor towards the city state.

The momentum is real, but the barriers to a fully functioning regional grid remain deeply structural.

The most immediate barrier is the lack of common rules: no agreed fees for transmitting electricity across borders, no shared data protocols, no standard measures for how much power can flow at any given time.

Beyond that, countries are at very different stages of grid development, making technical alignment difficult. Southeast Asia's island geography, especially across the Philippines and Indonesia, means subsea cables are unavoidable and expensive. The most persistent obstacle, however, is political.

"To garner high-level political buy-in from the Asean member states, the deci-

"To garner high-level political buy-in from the Asean member states, the decision-makers need to acknowledge the quantified costs and economic, social and environmental benefits of building the interconnections."
Nadhilah, Asean Centre of Energy

AUTHOR: Danial Dzulkifly SECTION: SUPPLEMENT PAGE: 54TO57 PRINTED SIZE: 3157.00cm²
REGION: KL MARKET: Malaysia PHOTO: Full Color ASR: MYR 59,025.00 ITEM ID: MY0068534963

30 MAR, 2026

Asean Power Grid to drive the region's next chapter

The Edge, Malaysia

BLOOMBERG

A hydropower plant in Vietnam ... Asean countries are at very different stages of grid development, making technical alignment difficult.

sion-makers need to acknowledge the quantified costs and economic, social and environmental benefits of building the interconnections," Nadhilah says.

That means building the evidence of what each interconnection costs, what it saves and what it delivers in carbon and energy security terms. The Philippines' chairmanship is tasked with doing exactly that, alongside completing the Asean Submarine Power Cable Development Framework by year's end.

"Looking at the archipelagic nature of Southeast Asia, particularly the Philippines and Indonesia, submarine power cable development plays a huge part in unlocking and utilising the available renewable potential," Nadhilah says.

Beyond financing, the United Nations Economic and Social Commission for Asia and the Pacific is partnering with ACE to test multilateral power trade through sub-regional pilot projects this year.

The target is a fully connected grid by 2045, which is the same window in which Asean aims to push renewables from below 30% to above 70% of its electricity mix, according to the Asean Energy Outlook 8.

"Stronger regional integration through harmonised rules and common standards will help Asean manage external pressures while preserving openness," says Nadhilah.

The region holds an estimated 20 terawatts of untapped solar and wind potential, according to the IEA, enough to power Southeast Asia many times over. The grid is how that potential reaches the people and industries that need it. Whether Asean can build it at the pace its energy demand now requires remains among the bloc's major challenges. ●

AUTHOR: Danial Dzulkifly SECTION: SUPPLEMENT PAGE: 54TO57 PRINTED SIZE: 3157.00cm²
REGION: KL MARKET: Malaysia PHOTO: Full Color ASR: MYR 59,025.00 ITEM ID: MY0068534963

30 MAR, 2026

Asean Power Grid to drive the region's next chapter

The Edge, Malaysia