

ASEAN Electricity Trends in Early 2024



Renewable Power Capacity

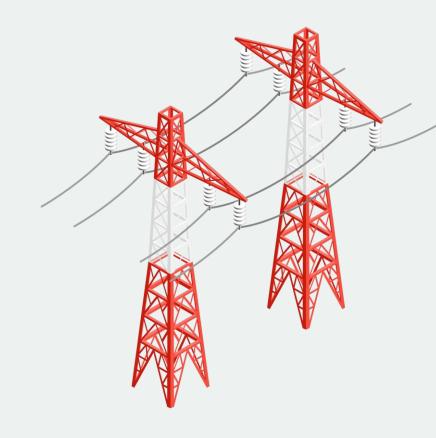


Despite fossil fuels domination in power capacity resources, ASEAN pushed to expedite **renewable power**, particularly **solar and wind**

Reliable Power Interconnection



Connect the national grids with **power interconnections** that can ensure the reliable power generation supply



Fluctuated Electricity Price



Trends in **electricity price** ASEAN as electricity bills vulnerable to economic shocks

Electricity Resiliency



A recent heatwaves break the electricity demand record and jeopardise the **electricity resiliency**



Pushing for Renewable Source in Installed Capacity

The <u>ASEAN Power Updates</u> reported that fossil fuel capacity in 2022 still dominate than renewable in the capacity additions. In early 2024, the renewable addition was mainly driven by solar power.

Fossil Fuel & Alternative Source



Malaysia terminated the dependence on <u>diesel for electricity</u> in Ranau by connecting to the grid, Lingkudou 33/11Kv Main Distribution Substation (PPU)



Thailand and Vietnam filed bids to build the USD 2.4 billion <u>LNG-fired</u> <u>power plant</u> in the central province of Thanha Hoa, Vietnam



Vietnam attracted Japan to build a <u>50-MW biomass power plant</u> in the northern mountainous province of Lao Cai.

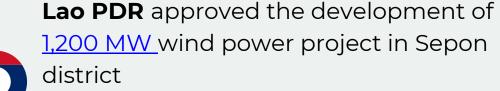
Renewable



Malaysia launched <u>2 GW solar tender</u> featuring rooftop, ground-mount, and floating solar



Singapore covered the <u>installation of solar</u> <u>panels</u> at over 1,000 housing blocks and government sites





Lao PDR planned to sell seven wind energy plants with a total of <u>4,150 MW</u> to **Vietnam**



Viet Nam' farmers pioneered the <u>solar</u> <u>power model</u> combined with agricultural production for cost-efficient productions



Indonesia secured a 440 MW solar-pluswind project and planned to sell the power to Indian state-owned utility through a 25year power purchase agreement (PPA)

Electricity Policy



Viet Nam government approved a plan to implement the <u>National PowerDevelopment</u>

<u>Master Plan 2021-2030</u>, with a vision to 2050, that covers <u>renewable power</u> capacity and small sized hydroelectric power projects

Vietnam drafted a Decree on the <u>Direct Power</u>

<u>Purchase Agreement (DPPA)</u> which allows

manufacturing enterprises to buy directly from renewable power with or without through state utility.



Thailand proposed an increased of renewable power generation beyond the <u>target of 50%</u> in the Power Development Plan (PDP)



Malaysia Federal Government passed three bills—the Sabah Energy Commission (Amendment) Bill 2024, the Sabah Renewable Energy Bill, and the Electricity Supply Bill 2024—related to the takeover of regulatory authority over power supply to Sabah Government

Interconnections Link Up National Power Grids



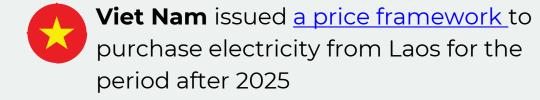
ASEAN countries continue their commitments to construct the regional power interconnection that ties a network of national and local grids

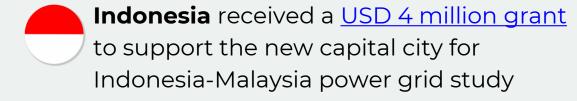
Power Interconnection



Malaysia' agreed to establish the Energy Exchange Malaysia (Enegem) to facilitate cross-border sales of green electricity to neighbouring countries

Malaysia' forged alliance with China's stateowned power utilities to revolutionise the <u>ASEAN Power Grid (APG)</u> through highvoltage direct current (HVDC) technology







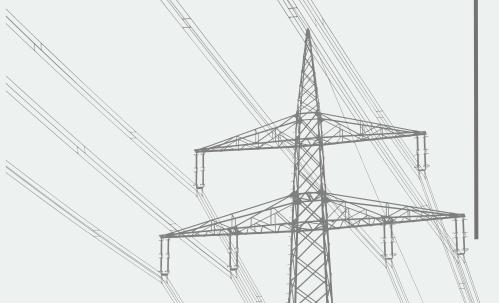


Malaysia commenced the Energy Exchange Malaysia (Enegem) with a pilot auction to export 100 MW to **Singapore** using existing infrastructure





Cambodia imported <u>445 MW</u> from Lao PDR and around 25% of Cambodia' power requirement from Lao PDR, Viet Nam and Thailand.



National & Local Grid



Thailand' consortium planned to develop a <u>pilot microgrid project</u> with a total value of USD 1.9 million run by wave power to be deployed on a remote island



Viet Nam planned to connect the tourism archipelago of Con Dao with the <u>national</u> <u>grid</u> that values the USD 104 million

Viet Nam planned to finish the Quang Trach-Pho Noi of <u>500kV power</u> <u>transmission line</u> project by mid-2024



Philippines granted <u>a compliance certificate</u> for a grid provider' metering solutions to market and distribute its products across the country

Fluctuated Electricity Price Amidst Strong Demand

Although it is anticipated energy prices at ease, the electricity bills remain vulnerable to the economic shocks. Stateowned utility in ASEAN reviewed fuel tariff and pricing mechanism on electricity to ease fluctuations

Electricity Tariff



Malaysia' electricity affordability is at risk where 80% consumers of state-owned utility owe the company <u>USD 42,6 million</u> in outstanding bills



Viet Nam requested the state-owned utility to develop a roadmap and <u>establish a two-tier electricity pricing mechanism</u> to optimise economic efficiency and reduce electricity costs

Viet Nam proposed a <u>hike in electricity</u> <u>price</u> this year after pushing it up 7.5% last year to cover rising costs



Thailand electricity rates until April 2024 adjusted to USD <u>0.12 per unit</u> from USD 0.11 in December 2023

Thailand electricity bill remained at the same rate for households at <u>USD 0.12</u> from May to August



Philippines granted the <u>discount for</u> <u>electricity rates</u> to qualified power consumers

Philippines' state-owned company proposed to increase power rates by <u>17.54%</u> in off-grid areas

Philippines' electricity rate in February increased to <u>USD 0.21 per kWh</u>

Government Policy



Indonesia enacted MEMR Regulation
No.2/2024 that abolishes net metering for
rooftop PV installations, led to expensive
tariffs for households and somm businesses



Thailand' state-owned utility proposed annual fuel tariff review on electricity instead of every four months to ease fluctuations in electricity prices



Malaysia allocated <u>USD 410 million</u> in electricity subsidy for consumers in January – June to minimise the impact of a rise in the global prices fuel



Viet Nam unified <u>meter reading date</u> for February to make electricity bill calculation more accurate and transparen



High-record Heatwaves Disrupted the Power Grids

ASEAN grappled with a <u>severe heatwaves</u>, surpassing the electricity demand high-record in recent months. This triggered the power alerts and sparked fears over power shortages, mainly faced by Vietnam, Laos, the Philippines, and Thailand.

Supply Disruptions



Malaysia projected the power reserve margin to be between <u>28-36%</u> from 2024-2030, above the minimum level requirements in facing supply disruptions



Viet Nam still required an additional 19,000 MW of electricity in 2023-2025 to anticipate electricity shortage, which will import from **Lao PDR**

Viet Nam had potential of <u>power shortages</u> that may unattract foreign investors



Cambodia electricity demand has increased by 30% compared to last year



Lao PDR faced frequent <u>power outages</u> due to heightened electricity consumption by 28%



Philippines declared <u>yellow alert</u> status where 38 power plants on forced outage and 11 on derated capacities in Luzon and Visayas grids



Thailand witnessed an unprecedented surge in electricity consumption at its peak of 34 GW in April, projected could soar beyond 35 GW in the coming days

Government Plan



Singapore has deployed <u>Energy Storage</u> <u>Systems (ESS)</u> to enhance power grid stability



Philippines foresaw no power supply in the comming months and assured <u>sufficient</u> <u>energy supply</u> during the El Nino season



Viet Nam instructed to ensure coal and gas supply for <u>electricity production</u> to prevent repeated power cuts in the northern region

Viet Nam stored <u>water in reservoirs</u> that can produce 11 billion kWh in facing dry season



Malaysia utility company took cautious approach to manage power supply amidst heatwave as the power reserve margin holds 12% for Sabah and Labuan

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