

Renewables & Sustainable Finance on Acceleration Mode



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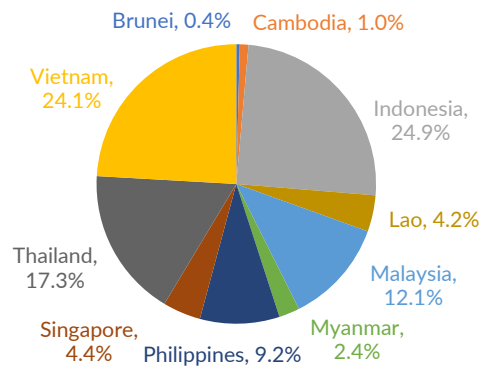
ASEAN: Targets 35% share of renewables by 2025

Within ASEAN, Indonesia makes up 25% of total electricity consumption, Vietnam was 24%, Thailand was 17% and Malaysia was 12%.

ASEAN region is still relying on fossil fuels despite the urgent need to reduce carbon emissions. There is a growing chorus to increase the share of renewable energy, no new addition of coal plants and early retirement of coal capacity.

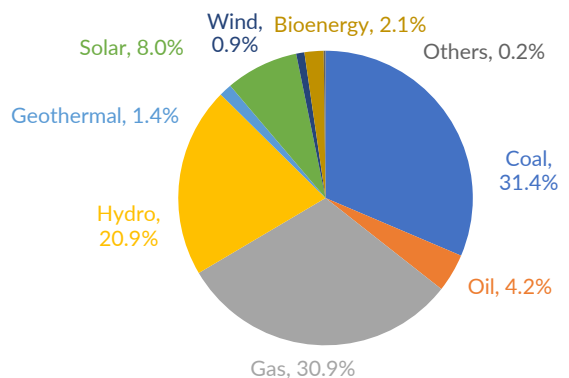
Through the ASEAN Plan of Action for Energy Cooperation (APAEC), the region has committed to achieving the targets on Renewable Energy (RE) share of 23% in Total Primary Energy Supply (TPES) vs 14% in 2019 as well as the 35% share in installed power capacity by 2025 vs 33.5% in 2020 dominated by hydro at 21%.

2020 Installed capacity by country



Source: ASEAN Power Updates

2020 Installed capacity by source



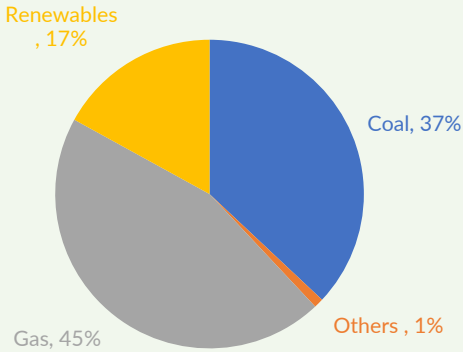
Source: ASEAN Power Updates

Malaysia: Targets 40% share of renewables by 2040

Including hydropower, Malaysia targets 31% of its installed power capacity to be renewable by 2025 and 40% by 2035.

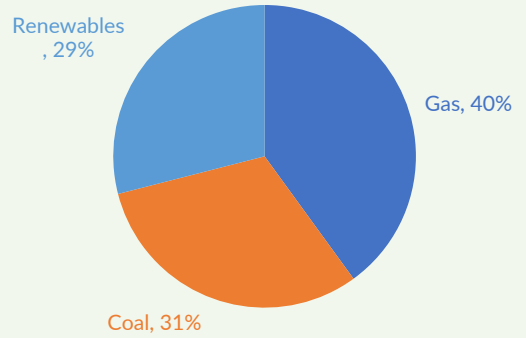
Industry reports forecast renewables including hydro to be 29% of the total energy basket of Malaysia by 2030 because the country's rollout of large-scale renewable energy projects is yet to gain speed compared to some other ASEAN countries.

Current Capacity by Fuel Mix



Source: Report on Peninsular Malaysia Generation Development Plan 2020
Above does not include large hydro projects in East Malaysia

Sources of Energy in 2030



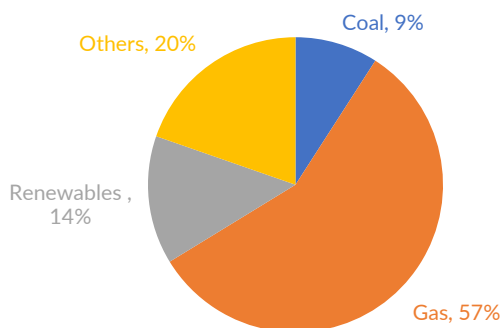
Source: Report on Peninsular Malaysia Generation Development Plan 2020
Above does not include large hydro projects in East Malaysia

Thailand: Targets 50% share of renewables by 2050

By 2050, Thailand is aiming for renewable energy sources to account for 50% of its power generation capacity vs its earlier target of 30%. Currently, it is 14%.

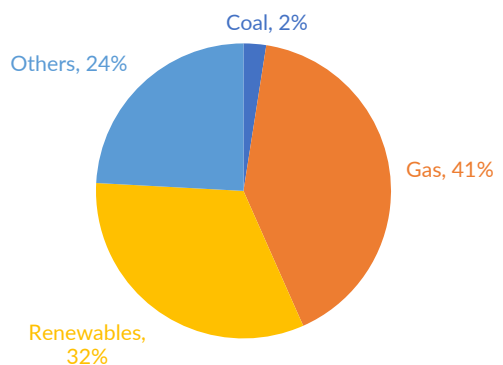
Fitch forecasts renewables capacity to surge to 17.2GW by 2030-end from 9.7GW at end-2021; representing a 7% CAGR.

Current Sources of Energy



Source: Thailand Power Development Plan (PDP) 2018

Sources of Energy in 2037



Source: Thailand Power Development Plan (PDP) 2018

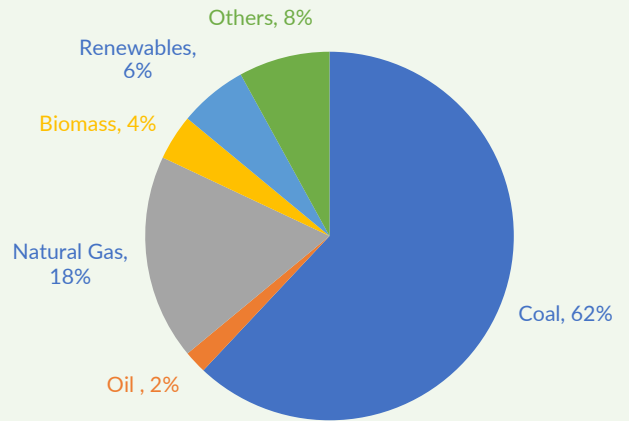
Indonesia: Targets 25% share of renewables by 2030

According to Climate Action tracker, Indonesia's policies are critically insufficient to put it on track for the 1.5°C pathway. Indonesia has installed electricity generation capacity of 73.3GW as of June 2021 and is dominated by coal, which accounts for above 60%.

The government wants to shift away from fossil fuel and reach net zero carbon emissions by 2060. It targets new solar power capacity of 908MW from around 150MW in 2020. Renewables would comprise 25% of Indonesia's energy mix by 2030 as renewables will be 51.6% of planned capacity addition in 2021-30.

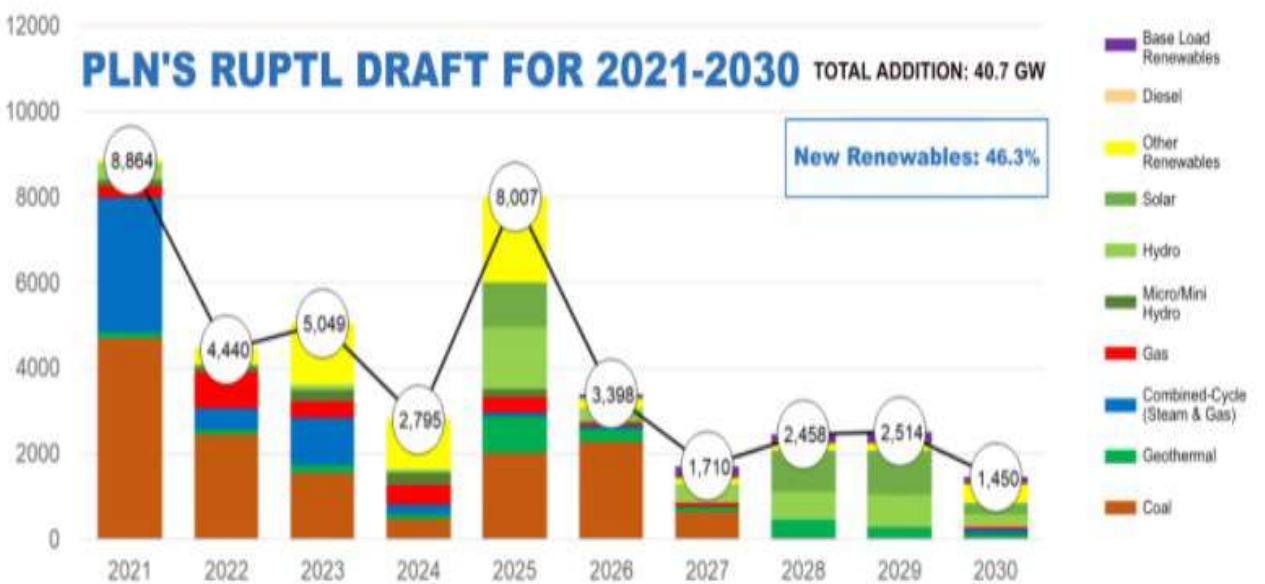
The government is seeking USD56b private investment for all new plants in 2021-2030.

Current sources of energy



Source: IEA

Sources of energy in 2030



Source: PLN's RUPTL plan

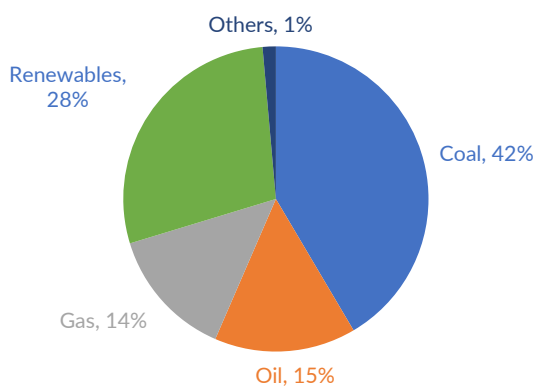
Philippines: Targets 35% share of renewables by 2030

Based on the updated plan of the Philippines government, it is aiming for renewable energy to account for above 35% of the country's power generation mix by 2030 and above 50% by 2040.

The Philippines announced a moratorium on new coal-fired plants in October 2020. In fact, it has led to the cancellation of 8-10GW of proposed coal-based power plants in the country.

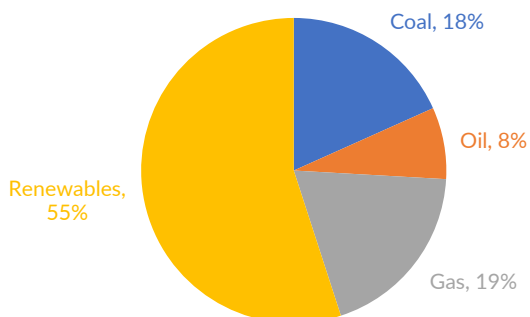
It is reforming to allow foreign investments in geothermal and biomass projects but not in solar/wind yet.

Current sources of energy



Source: Department of Energy

Energy mix in 2030 with coal moratorium



Source: Department of Energy



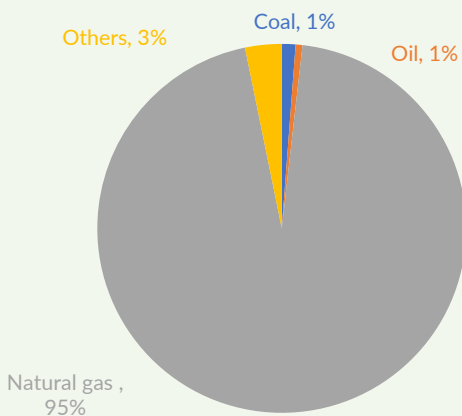
Singapore: Plans to Increase Renewables in its Energy Basket

Owing to its small size, Singapore imports almost all its energy needs, and has limited renewable energy options.

Nevertheless, Singapore aims to deploy at least 2 gigawatt-peak of solar energy by 2030. It also plans to diversify its energy mix from natural gas to include regional power grids and low-carbon alternatives such as hydrogen.

Singapore has already placed a carbon tax of SGD5/tCO₂e from 2019 to 2023 on industrial facilities emitting more than 25ktCO₂e/annum. This will be raised to USD25/tCO₂e in 2024 and 2025 and USD45/tCO₂e in 2026 and 2027 with a view to reaching USD50-80/tCO₂e by 2030. It targets 80% of the buildings to be certified green energy buildings by 2030.

Current sources of energy



Source: Statista

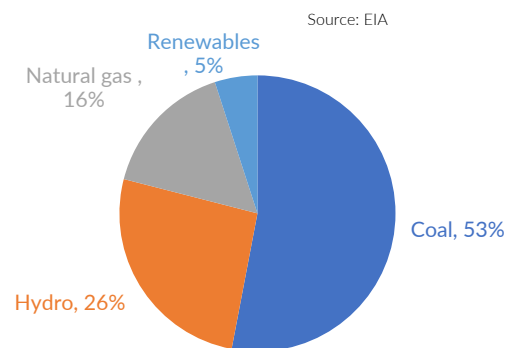
Vietnam: Targets 21% share of renewables by 2030

Vietnam is highly vulnerable to climate change as rising sea levels threaten the most vulnerable regions in South Vietnam, home to >20m people. Vietnam is a regional leader in solar with a capacity of 16.6GW, making it one of the top 10 countries globally in terms of solar capacity.

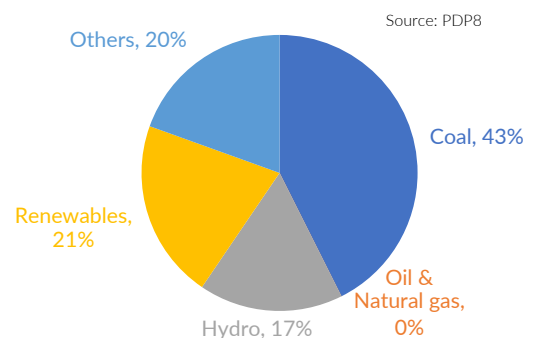
The next phase of growth will be wind as Vietnam has a large untapped potential of 16GW for offshore wind, of which the target is to add 10GW of wind projects by 2030. Vietnam plans to increase solar capacity to 18.6GW and wind capacity to 18GW by 2030. Vietnam has pledged to phase out coal plants by 2040, which is a step in the right direction.

The share of renewable capacity of overall energy is only 5%, which it is targeting to take to 21% by 2030 under the current plan but a more aggressive plan if executed well could take it to 49%.

Current sources of energy



Sources of energy in 2030



Stocks covered – BUYs on TPWR IN, AP PM & BGRIM TB

Company	Bbg code	Currency	Rating	CP	TP	Remarks
Tenaga Nasional	TNB MK	MYR	HOLD	9.1	9.3	Target 8.3GW RE by 2025, reduce emission intensity by 35% and coal by 50% by 2035 and net-zero and coal-free by 2050
						Under recovery of generation costs will continue which will drive government approval for full passthrough
						Valuations are attractive and ESG concerns seemingly largely priced-in, near term concerns over ICPT mechanism remain
Tata Power	TPWR IN	INR	BUY	226	300	Target 60%/80% share of clean energy by 2025/2030
						Full service RE offerings generation to Ev charging, recent funding in RE business to propel the business to next level
						Renewables and transmission businesses to be future growth drivers
Manila Electric	MER PM	PHP	NR	333	NR	Largest private sector electric distribution utility company in the Philippines, covering 36 cities and 75 municipalities
						A huge enabler of gov't RE policy mandate to source a 1% annual increment of their power demand from RE sources
						Trading below its 5-year average, but trading above median versus local peers. FY22E dividend yield is above peers
Aboitiz Power	AP PM	PHP	BUY	29	42	Pioneer developer in hydro RE, is targeting a 50-50 traditional-RE generation portfolio mix by YE30E
						balance sheet can still support expansion along with predictable operating cash flows
						SOTP-TP based on DCFs of AP's subsidiaries, using WACC of 6.3-6.7% for RE and 6.1-7.0% for non-RE and distribution
B Grimm Power	BGRIM TB	THB	BUY	32	42	Ambitious target to reach an installed capacity of 7.2GW by 2025, up from 3.2GW as of 2021
						Operates/developing projects in Thailand, Laos, Cambodia, Vietnam, the Philippines, South Korea, and Malaysia
						Current price fails to reflect BGRIM's improving and superior sustainability metrics relative to its peers
AC Energy	ACEN PM	PHP	BUY	6.7	9.4	Targeting to grow its attributable RE capacity to 5GW by FY25, currently RE at 87% of capacity
						Key beneficiary of the Renewable Portfolio Standards, has sold the majority of its coal assets, balance by 2030-2040
						Internally generated cash and proceeds from its divestments should be sufficient to fund future projects
Sembcorp Ind	SCI SP	SGD	NR	2.8	NR	Has a balanced portfolio of over 15GW of power of which RE is 36% which focus on brown to green
						Targets to grow net profit contribution from its sustainable solutions portfolio from 40% in 2020 to 70% by 2025F
						Committed to halving its greenhouse gas emissions by 2030 and delivering net-zero emissions by 2050.
First Gen Corp.	FGEN PM	PHP	NR	20.7	NR	Owens and operates four of the country's five natural gas-fired power plants and presence in geothermal and other RE
						Catalysts: Its delivery of the LNG terminal by 4Q22, gas contracting and securing new power supply agreements
						Trading within its 5-year mean and significantly below median PER of its local peers, depeition issues leading to derating
Ha Do Group	HDG VN	VND	NR	40,700	NR	Is a medium-sized property developer that is transforming into a RE producer
						Consolidated its RE investments into a subsidiary, planned on its listing in 2023/24
						Aims to be the leading player in RE market while maintaining good exposure to the profitable real estate industry