



The Philippine power sector: transitioning to net zero

The new Philippine government has critical decisions to make on investing in electricity generation infrastructure. Aggressively shifting to renewables will decarbonise the grid, provide energy security and help achieve 1.5°C.

KEY MESSAGES



THE TIME IS NOW

The new government can demonstrate it understands this pivotal point in history by actively turning away from fossil fuels and investing heavily in cheaper than ever renewables and committing to 1.5°C.



FOSSIL FUELS GONE BY 2035

To be 1.5°C compatible, it is critical a comprehensive plan to phase out all fossil fuels from the power sector by 2035 is set out, including reducing coal by over 65% and gas by over 45% by 2030 compared to 2019 levels. International support may be required to achieve these phase-out schedules.



ENERGY SECURITY AND A MORE RESILIENT ECONOMY

Fossil fuel reliance creates an uncontrollable economic risk when global prices rise. Renewable energy (RE) creates a domestic supply that virtually eliminates this risk, providing long-term price stability and energy security.



SHIFT INVESTMENTS TO REAP RENEWABLE BENEFITS

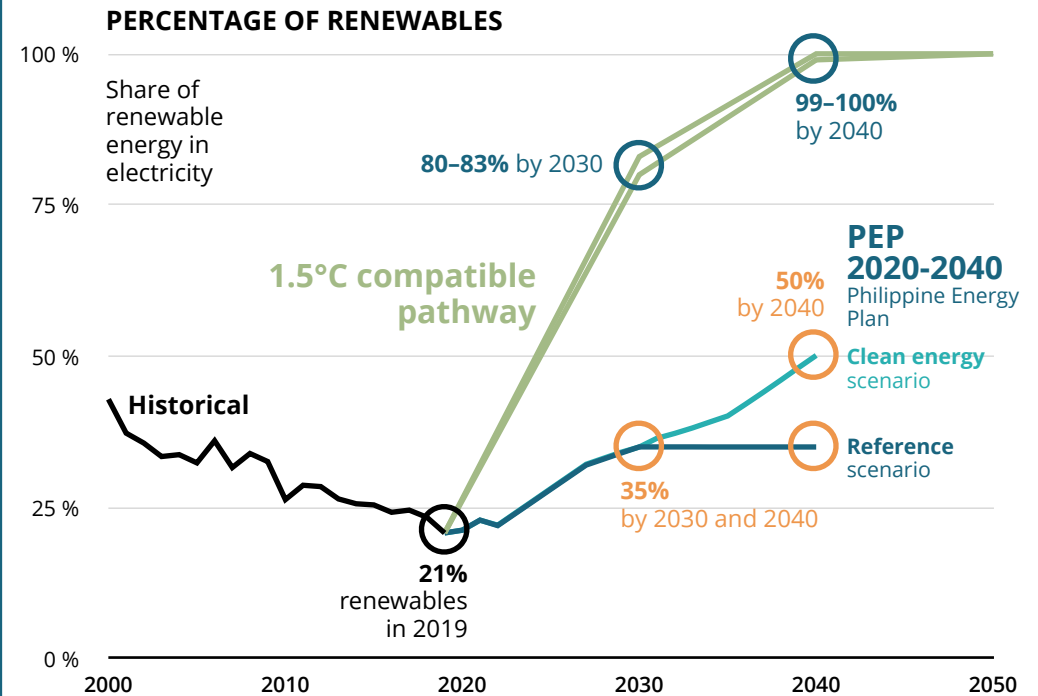
Every new coal or gas power plant risks being a stranded asset. Investment plans must switch to renewables, including transmission upgrades to make the grid more flexible and interconnected to absorb high levels of renewable energy.



TRANSITION WITH FAIRNESS

The Philippines needs a Just Transition plan to help communities affected by the phase-out of fossil fuels, ideally enabling pathways for jobs and communities, to benefit from a rapidly expanding market in renewables.

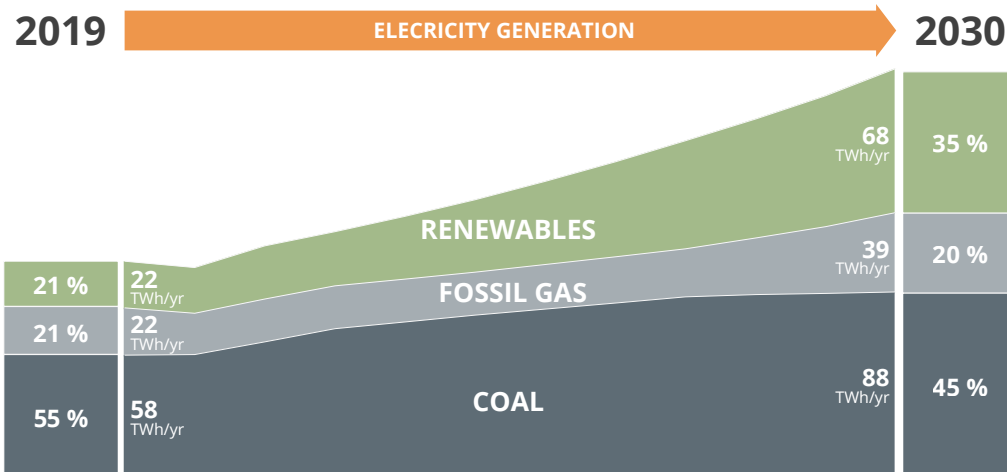
A 1.5°C path for 100% renewable electricity



RAMPING UP RENEWABLES IN LINE WITH 1.5°C AND CONDITIONAL NDC

The current Philippine conditional target is a strong, 1.5°C compatible target, contingent on international finance and support.¹ However, the NDC policies and measures² contradict the coal phase-out by 2035 benchmark by including the entry of “highly efficient coal technologies”. The government’s policies leave much to be desired, both in demonstrating the Philippines’ commitment to the goals of the Paris Agreement and to attract international support. The current Philippine Energy Plan (PEP 2020-2040) sees renewable generation triple from 2020 to 2030, but to be 1.5°C compatible, renewables would need to increase by around six to seven times, from 22 TWh in 2020 to approximately 130-150 TWh by 2030.

Where is the Philippines currently headed in 2030?



RENEWABLES

2019 → **2030**
RE share in power generation has declined to **21%** in the past decade, as it can't keep pace with demand.

The reference scenario of the Philippine Energy Plan (PEP 2020-2040) indicates renewable generation will triple but only make up **35%** of total power generation, mainly solar, hydro and geothermal.

FOSSIL GAS

2019 → **2030**
Gas accounted for **21%** share of the power mix in 2019, at 22 TWh/yr.

Gas generation will increase to 39 TWh/yr or **20%** of the power mix, or potentially more, given the recent push by government. Gas infrastructure expansion locks in emissions, creates energy insecurity and vulnerability to global price fluctuations impacting power rates.

COAL

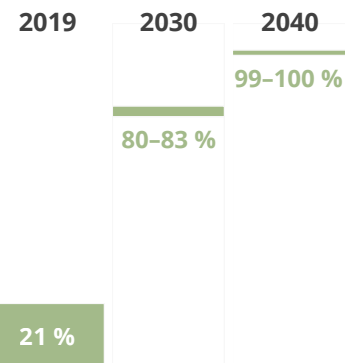
2019 → **2030**
Coal is the major source of electricity with nearly 11 GW of installed capacity in 2019, generating around 58 TWh/yr, or **55%** of the power generation mix.

Despite the coal moratorium, coal capacity additions amount to 2.6 GW from 2020 to 2025 with no additions planned after 2025. By 2030, coal power generation will increase to 86-88 TWh/yr or **45%** of power generation.

What needs to happen by 2030 and 2040?

RENEWABLES

1.5°C BENCHMARKS



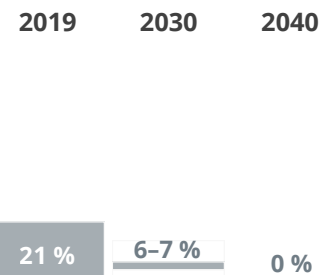
POLICY RECOMMENDATIONS

Following 1.5°C pathway modelling, **renewables need to be rapidly expanded to represent around 80% by 2030 and 100% by 2040.**

The transmission grid must be upgraded to incorporate higher variable loads, as well as consideration for connecting to other countries with diligent assessment of environmental implications. 1.5°C pathways show a **rapid decline in average cost** of power generation in the next 10 years, due to increasing shares of RE, and RE system costs continuing to fall. Nuclear power, although not renewable, is unfeasible given its high costs and risks.

FOSSIL GAS

1.5°C BENCHMARKS

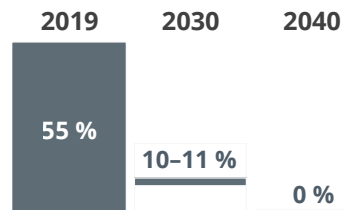


POLICY RECOMMENDATIONS

Following a 1.5°C pathway, **gas needs to be phased out by 2035.** This would decrease the share of gas in the power mix to around **6-7%** of power generation by 2030. The PEP 2020-2040 plans for 15-21 GW of additional capacity. The lifespan of the new gas plants will exceed the 1.5°C benchmark timeframe, locking in fossil fuels or risking expensive stranded assets. This investment is misguided when there is a cleaner, cheaper alternative. The Philippines needs to abandon gas plans, and invest in RE.

COAL

1.5°C BENCHMARKS



POLICY RECOMMENDATIONS

Following a 1.5°C pathway, **coal needs to be phased out by 2035,** requiring a **reduction** in the share of coal to around **10%** of power generation by 2030.

To achieve this, the Philippines would need to scrap all future coal plans and phase out the existing plants.