



As the world transitions away from fossil fuels, Vietnam's fossil fuel dependence grows – and the Mekong Delta is at stake

Southeast Asian Voices on Energy Transition in the Mekong Delta (SAVE Mekong Delta)

November 2024

Vietnam leads fossil gas expansion in Southeast Asia despite committing to decarbonization

Vietnam's climate targets and policies remain critically insufficient to accomplish the 1.5°C goal under the Paris Agreement. Under Vietnam's 2022 Nationally Determined Contribution (NDC), unconditional targets will result in a 162% increase in greenhouse gas (GHG) emissions by 2030 compared to 2015, while conditional targets will still result in an 81% increase in GHG emissions by 2030 compared to 2015. But with Vietnam already on track to becoming the fourth-largest coal emitter in Asia, the prospect of reaching the country's net-zero targets becomes ever more elusive.

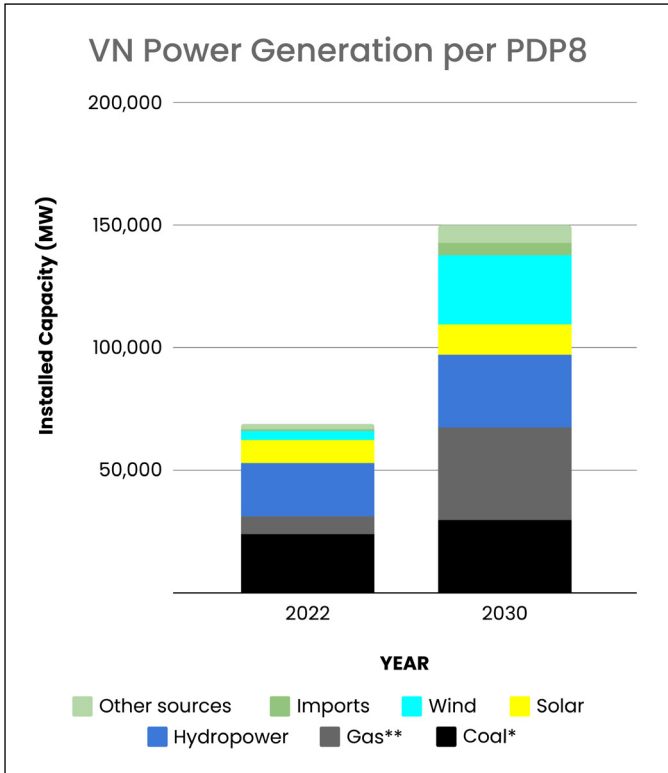
According to estimates by Climate Analytics, Vietnam should limit its emissions to merely a 2% increase compared to 2015 levels by 2030 for it to align with Paris Agreement targets. This target requires Vietnam to transition away from fossil fuels immediately. A 1.5°C-aligned pathway for Vietnam means that renewables should already constitute around 90–95% of the power generation mix by 2030, with coal to be phased out by 2030 and gas phased out between 2035–2040.

Based on Vietnam's Eighth Power Development Plan (PDP8) targets, renewables will only comprise 50.9%

of generating capacity by 2030 – far lower than needed to reach Paris goals. Despite the promise of the PDP8 to phase out coal use, Vietnam in fact plans to grow its coal capacity by 25% between 2022 to 2030.

Vietnam's growing coal capacity is overshadowed by its plans to massively deploy gas infrastructure. Vietnam leads the region in planned gas capacity at 55.7 GW, with 32.8 GW targeted for operation by 2030 – a larger capacity than Vietnam's existing and planned coal capacity. By increasing its demand for gas by up to five times by 2030, Vietnam will even miss its commitment under the Global Methane Pledge, which requires a reduction of at least 30% of all methane emissions by 2030.

International financing has greatly contributed to Vietnam's increasing dependence on fossil fuels. Although aiming to support Vietnam in its net-zero commitment by 2050, the Just Energy Transition Partnership's (JETP) focus on "scal[ing] down of coal power generation pipeline" and the "transition of coal power generation units" is likely to promote fossil gas development and coal abatement using false solutions and not deterring coal expansion. The JETP Resource Mobilization Plan even explicitly lists the "development of mixed gas turbines using LNG that displaces coal" as an investment option. Vietnam is also a partner country of the Asia Zero Emissions Community (AZEC), an initiative launched by Japan where more than one-third of agreements promote fossil fuel technologies.



¹CEED (2024). "Southeast Asia at a Crossroads: Deterring SEA's Fossil Future with Renewables"

The Mekong Delta: the center of the center of fossil gas expansion in the region

The Mekong Delta will be the epicenter of this wave of fossil gas expansion in the country and the whole of Southeast Asia. This area will host 64% of Vietnam's total fossil gas capacity by 2030. The region is also host to all of Vietnam's domestic gas pipelines extracting gas from the Nam Con Son, Cuu Long, and the PM3-CAA gas fields. The region will host some of the most significant gas projects to be established in Vietnam:

- **Block B-O Mon Project Chain**

The Block B-O Mon Gas-To-Power Chain will be the longest of its kind in Vietnam, with a total length of 431 kilometers, including 329 km undersea and 102 km onshore. When completed, it will transport fossil gas from Block B to the O Mon Power Complex with a designated capacity of 18.3 million cubic meters per day. The pipeline will operate until 2049.

Upstream in the project chain is the Block B gas project, Petrovietnam's main oil and gas project, which hosts total gas reserves of 110 billion cubic meters (bcm), with an estimated yearly production of 5.06 bcm for a period of 20 years. Funding has

already been secured in 2024 through JBIC, while EPC and gas sale contracts have already been awarded to contractors since 2023.

Gas from Block B will be fully sent to the O Mon Power Complex, a 3.81-GW power complex right in the middle of the Mekong Delta in Can Tho City. The 660-MW O Mon I Power Plant is already in operation, while the three other power plants comprising the complex are at different stages of development.

- **Son My Project Chain**

The Son My Gas-to-Power Project Chain will be one of the largest LNG project chains in Vietnam, once completed. The project chain may also be used to supply feedstock to other new power plants such as Nhon Trach 3 & 4, and Long An 1 & 2. It is located in Binh Thuan Province, which is considered a National Energy Center for having the highest solar and wind potential in Vietnam.

The 10-mtpa Son My LNG Terminal is projected to be Vietnam's largest LNG import and export facility. According to news articles, this import terminal is owned by a partnership between the United States' AES Corporation and Petrovietnam, with funding to be secured from the US International Development Finance Corporation and the US Export-Import Bank. Inquiries made by SAVE Mekong Delta to the US DFC and US EXIM last September 2024 showed that neither institution made such investments or commitments.

Gas from this terminal will be used to fuel the 4.5-GW Son My Power Complex, Vietnam's largest power complex identified under PDP8. The complex will have two power plants, with 2.25-GW Son My I Power Plant owned by a consortium of companies led by EDF France and the 2.25-GW Son My II Power Plant fully owned by AES Corporation.

- **Long An Power Complex**

The 3-GW Long An Power Station is Vietnam's first approved conversion from a coal-fired power plant to an LNG-fired power plant. The power station was initially proposed as a 2.8-GW coal plant but was eventually changed to be gas-powered in 2018. The proposed site is right at the border of Ho Chi Minh City – only 20 km away from the city center – attracting resistance from local officials due to concerns about pollution and respiratory health impacts in the most populated city in Vietnam.

The Power Complex is owned by a consortium of VinaCapital Investment Management from Vietnam and South Korea's GS Energy. As of December 2023,

Vietnam's Government Inspectorate declared violations such as the non-payment of bank guarantees, as well as lax management on the part of the provincial government that led to violations in land use.

Other financiers not reported to have financed gas projects in Vietnam, such as the US International Development Finance Corporation and the Korea Export-Import Bank, have shown interest in funding gas.

Foreign business and geopolitical interests fuel gas capacity growth in the Mekong Delta

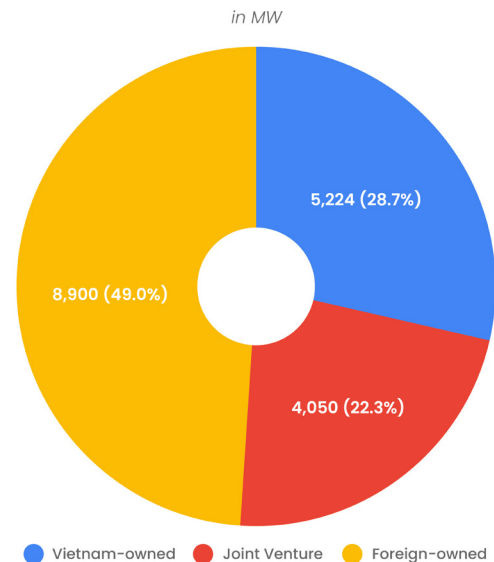
While Vietnam's main state-owned enterprises on energy, the Electricity of Vietnam (EVN) and Petrovietnam (PVN), remain the main players in Vietnam's energy sector, foreign companies have increasingly invested in energy in the country. Of the 16 fossil gas plants planned for establishment around the Mekong Delta, seven are fully foreign-owned while three are joint ventures with Vietnamese companies. This means that around 71.3% of gas capacity in the region by 2030 – or around 13 GW – will have been established at least in part by foreign players.

The American companies Delta Offshore Energy and AES Corporation, in total, own 5 of these plants comprising a total of 5.45 GW of electricity. A Taiwanese company owns 1 plant, Hiep Phuoc 1-4, with 1.2 GW capacity. A consortium of companies from France (EDF France), Japan (Kyushu Electric, Sojitz Corp), and Canada (Pacific Energy) owns 1 plant, Son My 1, with a capacity of 2.25 GW. Joint ventures with the Vietnamese government are pursued by companies from Korea (GS Energy) and Japan (Marubeni Corp.)

International financing, particularly from the Global North, significantly contributes to this growth in gas capacity in the Mekong Delta. From 2016 up to Q3 2024, a total of USD 2.73 billion have been invested in gas projects in the country. Japan has provided the majority of this funding, investing a total of USD 1.05 billion on the Block B gas project, among others. Funding from the United States follows at USD 494.15 million, for upstream and midstream gas projects at Block B, and downstream at Nhon Trach 3 and 4. Financing from the Netherlands follows, amounting to USD 410.75 million. Up to a total of 81.6% of financing for gas projects in Vietnam, or almost USD 2.3 billion, comes from the Global North.

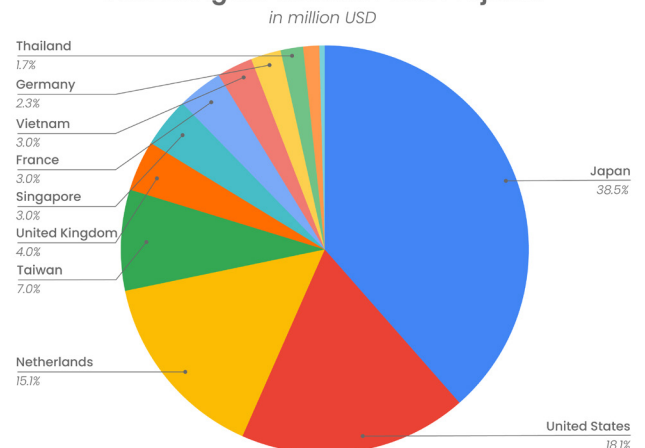
The top five investors providing loans for Vietnam's gas projects are Citigroup (USD 494.15 million), Japan Bank for International Cooperation (USD 415 million), ING Group (USD 410.75 million), Mizuho Financial (USD 272.4 million), and Norinchukin Bank (USD 180.00).

Ownership of Planned Fossil Gas Plants in the Mekong Delta



These investments in fossil gas not only worsen the overall climate situation. It also ties down Vietnam onto the geopolitical interests of the countries that invest in their LNG infrastructure. In the case of the United States, American LNG exports have historically been linked to US foreign policy, with its investments in LNG infrastructure linked to LNG export deals with US companies. The first Trump administration has also used rapid increases in fossil fuel exports to accomplish geopolitical objectives in Asia under its "energy dominance" agenda. In the case of Japan, its investments in LNG infrastructure are criticized by civil society organizations as an effort to maintain its dominance in the gas supply chain.

Financing for Vietnam Gas Projects



These factors, coupled with financing for renewables provided primarily at commercial rates instead of highly concessional loans or grants, skew the incentive structure away from a transition to renewables and towards fossil fuels, where foreign countries could sustain profits. Ultimately, the Vietnamese people will pay these costs – of loans from renewables, high gas prices, and environmental damage.

What is at stake: the most productive river in the world and the life source of Southeast Asians

The Mekong Delta is one of the largest and most fertile deltas in the world. It is an important food basket for Southeast Asia. It is located at the mouth of the Mekong River, the world's most productive river which produces 25% of the world's inland catch. The Mekong Delta itself produces much of Vietnam's agricultural output: the region alone produces 95% of rice and 60% of fish exports from Vietnam.

The health of the Mekong Delta is key to the health of the whole Mekong River – and all populations that depend on this river for food and livelihoods. The delta serves as a spawning ground for fishes that populate the whole river. It also is the migration route for at least 61 diadromous fish species – or fishes that migrate between fresh and marine waters. It is home to critically endangered species like the Irrawaddy dolphin, as well as some of the largest freshwater fishes like the Mekong Freshwater Stingray and the Mekong Giant Catfish. Up to one-fifth of Mekong fish species already face extinction.

The massive expansion of fossil gas infrastructure in the area thus harms not only Vietnam but the rest of Southeast Asia. Fossil gas plants emit carbon monoxide, sulfur dioxide, mercury, and volatile organic compounds (VOCs), associated with cancer, as well as respiratory, heart, reproductive, and mental health diseases. Mercury in particular is bioaccumulated, endangering the health of people who consume mercury-laden produce. Aside from the toxic chemicals emitted by gas plants, warm water discharged by gas plants also disrupts spawning grounds and vulnerable habitats along the river. With the Mekong Delta being a spawning ground and migration route, impacts on ecosystems in this region have the possibility of cascading across the whole river.

Vietnam's dash for gas in the Mekong Delta shows the need for the participation of Vietnamese climate experts and advocates in the country's energy development. Their efforts have contributed to the slowdown of coal growth in the past decade, the

rapid deployment of renewables, as well as Vietnam's highly praised decision to commit to net zero at COP26. Community and civil society participation is vital in ensuring that the Mekong Delta is kept safe from damage and pollution not only for the welfare of Vietnam but for the rest of Southeast Asia.

What is to be done: Resist fossil gas expansion in the Mekong Delta!

Vietnam's growing dependence on gas is caused not only by pro-fossil fuel energy policies by the Vietnamese government. It is a result of unenticing renewable energy financing mechanisms that depend on commercial loans rather than grants or highly concessional loans. It is encouraged by bilateral deals with countries whose geopolitical interests push for fossil fuel reliance.

Through its financing and its gas-linked trade deals, the Global North is enabling further fossil fuels expansion in Vietnam. The Global North should thus be held accountable for its continued efforts to profiteer from the climate crisis, leveraging Vietnam's – and the Global South's – need for energy for its development in order to extract earnings from the Vietnamese people through increasing their fossil fuel dependence. Financing mechanisms should be changed to divert investments away from coal and gas and into renewables. Instead of tying down Vietnam to fossil fuel dependence, financing should be towards encouraging Vietnam to adopt a more ambitious NDC that reflects 1.5°C-aligned transition pathways.

The threat that fossil gas expansion poses to the safety and biodiversity of the Mekong Delta should be recognized. This vital ecosystem, and the rest of the Mekong River, should be declared as a fossil-free zone. The bounty of this river sustains the health, livelihoods, and sustenance of millions of people – basic necessities that the region needs to survive a climate-constrained future.



SAVE Mekong Delta
*SEA Voices on Energy Transition
in the Mekong Delta*

This brief is produced by the Southeast Asia Working Group on Fossil Gas and Just Energy Transition and the Center for Energy, Ecology, and Development for the Southeast Asian Voices on Energy Transition in the Mekong Delta (SAVE Mekong Delta) campaign. Contact us at ceedphilippines.com or info@ceedphilippines.com