



ENERGY, ECONOMIC GROWTH AND EMISSIONS

CASE STUDY

Breaking reliance on coal
in Vietnam: A route to
renewables growth

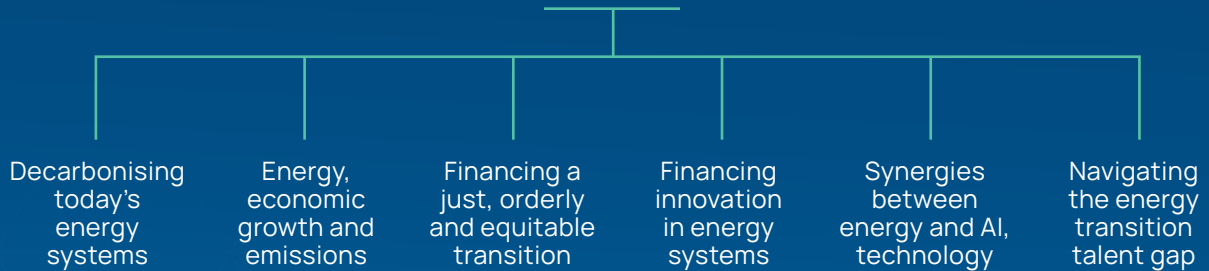
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Breaking reliance on coal in Vietnam: A route to renewables growth

CONTEXT

Vietnam is one of the world's fastest-growing per capita greenhouse gas (GHG) emitters, with emissions nearly quadrupling over 15 years¹.

The primary reason for this increase is the country's rapid economic growth, leading to a sharp increase in energy demand, resulting in Vietnam's economy becoming one of the most energy-intensive globally.

With coal currently dominating half of Vietnam's energy mix⁵, Vietnam's coal-fired electricity production resulted in 136 Mt of CO₂ emissions, accounting for about 88% of its CO₂ emissions from electricity generation, exceeding the world average of 73%.

Recognising the urgent need to transition to cleaner energy sources, Vietnam's Ministry of Industry and Trade (MOIT) has partnered with the United States Agency for International Development (USAID) and Deloitte Consulting to implement the Vietnam Low Emission Energy Programmes (V-LEEP and V-LEEP II).

CREATING THE LANDSCAPE FOR VIETNAM INNOVATORS TO DRIVE ENERGY TRANSITION

There is huge growth potential for Vietnam's green economy driven by its growing middle class, burgeoning business landscape, and wealth of natural resources, plus conditions favourable to green energy production, particularly in wind energy⁵.

One of the key goals of V-LEEP II is to develop a landscape in which local innovators can collaborate and pursue projects they can bring to market as part of their country's energy transition.

While clean energy in Vietnam has grown rapidly within the last few

12 bn

The number of kilowatt-hours of power deficiency Vietnam faced in 2023⁷

49%

Percentage of coal delivering Vietnam's energy supply⁵

2GW

Amount of renewable energy deployed during the V-LEEP II programme⁶

2TW

Amount of renewable energy deployed during the V-LEEP II programme⁶

Organisations involved

- US Agency for International Development (USAID)
- Deloitte
- Vietnam Ministry of Industry and Trade

Industry Energy

Location Vietnam

Investment US\$36 mn

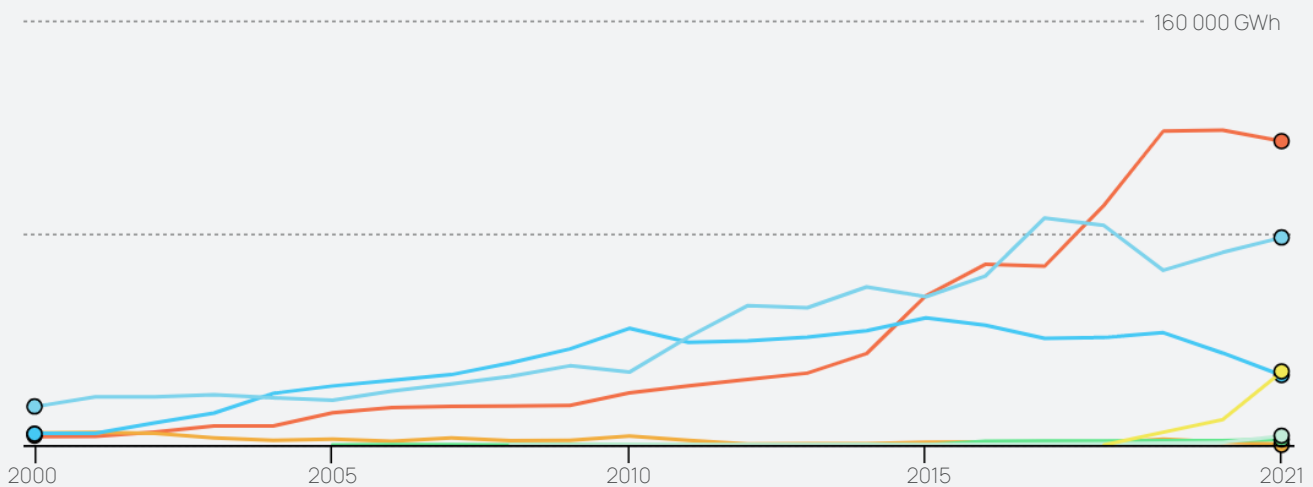
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Leveraging renewables to move Vietnam around the transition curve

Coal is proving a hard habit to break in a nation where the commodity is abundant, but the country does have alternatives

● Coal
 ● Oil
 ● Natural gas
 ● Hydro
 ● Biofuels
 ● Wind
 ● Solar PV



Source: IEA Data Services

years, support for entrepreneurship in the sector is relatively new, with the energy industry traditionally composed of and perceived as large-scale power projects delivered by state-owned operators.

Recent developments in areas such as rooftop solar, energy efficiency, and electric transport offer more business opportunities and room for innovation in the clean energy market. However, aspiring energy startups in Vietnam face several obstacles, including a lack of essential skills to launch and grow successful businesses, and inadequate access to markets, networks, and seed capital.

To help remedy these shortfalls, V-LEEP II seeks to create a strong support community of investors, corporate partners, universities, and research labs to increase the establishment of energy ventures, leverage support and investment, and develop a platform for international technologies to enter the market.

The programme will connect local energy entrepreneurs with Deloitte's global network of

experts for knowledge sharing and expansion opportunities and will collaborate with Vietnam's recently launched National Innovation Centre.

V-LEEP II builds on the successes of the first edition of the programme, which helped drive over US\$311 million of investments to successfully deliver 300 megawatts (MW) of wind and solar from six private sector-led projects. Between 2019 and 2021, these renewable energy projects, along with savings from energy efficiency improvements, reduced about 730,000 tonnes of GHG emissions, or the equivalent of 365,482 tonnes of coal.

Ann Marie Yastishock, USAID Mission Director, said: "Through V-LEEP II, USAID will continue to support Vietnam's transition to a clean, secure and market-based energy sector. Not only will renewable energy help Vietnam meet soaring energy demand in a sustainable way, but it will also increase its energy security while advancing its COP26 commitments."

The V-LEEP programmes also support efforts to advance Vietnam's Eighth National Power

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Development Plan (PDP8) to boost wind energy and gas, while reducing reliance on coal³.

PDP8 lays out a vision for investment in Vietnam's power sector through to its 2050 net-zero commitment, including battery storage, hydrogen, and ammonia, with scope for businesses to innovate and collaborate².

With a US\$36 million budget, V-LEEP II is expected to advance Vietnam's clean energy transition further, between 2020 and 2025, by supporting the design, financing, construction, and operation of 2 GW of renewable energy projects, including wind and solar power, all the while enhancing collaboration between businesses.

V-LEEP II also promotes transparency and competition in energy procurement via the Direct Power Purchase Agreement Pilot Programme, initiated in 2017 with USAID support⁶. This paves the way to enable private buyers to purchase renewable power directly from private sellers, rather than go through the state-owned utility Vietnam Electricity as an intermediary.

The country's robust industrialisation process has fuelled a surging demand for energy in general, and specifically for electricity. The Government of Vietnam expects power consumption to grow 10-12% annually through 2030, one of the fastest power consumption growth rates in Asia⁴.

Among V-LEEP II's tasks are to support international and domestic lenders to improve project readiness and quality, mobilise private sector investment to deploy advanced clean energy systems, provide advisory support to project developers to create bankable projects, and connect project developers with investors and/or lenders.

Vietnam is a prime example of a country trying to combine a fast-growing economy while shifting towards an energy system that keeps pace with the global energy transition. And V-LEEP is a demonstration of how international collaboration can support and drive developing nations with their decarbonisation goals using a model that can be adopted elsewhere in the world.



Through V-LEEP II, USAID will continue to support Vietnam's transition to a clean, secure and market-based energy sector. Not only will renewable energy help Vietnam meet soaring energy demand in a sustainable way, but it will also increase its energy security while advancing its COP26 commitments.”



Ann Marie Yastishock
USAID Mission Director

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