



Vietnam

GDP: **\$186.2bn**Five-year economic growth rate: **9.9%**Population: **90.7m**Total clean energy investments, 2009-2014: **\$2.1bn**Installed power capacity: **33.8GW**Renewable share: **16.3%**Total clean energy generation: **5.3TWh**

Top energy authority:

Ministry of Industry and Trade**OVERALL RANKING**

2014

2015

OVERALL SCORE

2015

13**22****1.28**

PARAMETER	RANKING	SCORE
I. Enabling Framework	35	1.05
II. Clean Energy Investment & Climate Financing	32	0.43
III. Low-Carbon Business & Clean Energy Value Chains	14	3.19
IV. Greenhouse Gas Management Activities	17	1.68

SCORE SUMMARY

Vietnam in 2015 scored 1.28 to finish 22th overall among *Climatescope* 2015 nations. Its ranking dropped nine places from 2014. This was largely due to a retreat on Parameter I.

Vietnam's 2015 score on Parameter I Enabling Framework was 1.05, compared with 1.33 in 2014. Although the country introduced feed-in tariffs to the biomass and waste-to-energy sector in 2014, its wind feed-in-tariff has been ineffective so far and an anticipated revision did not materialize.

On Parameter II Clean Energy Investment & Climate Financing, Vietnam's 2015 score was little changed from 2014 and its ranking improved one spot, to 32nd. The country's clean energy

investment dropped to \$67m most recently, less than half that of the previous year.

Vietnam improved its score on Parameter III Low-Carbon Business & Clean Energy Value Chains from 2.99 to 3.19, although it slipped one rank to 14th. Wind and solar equipment manufacturers have emerged in the country, while the number of clean energy service providers continues to grow.

On Parameter IV Greenhouse Gas Management Activities, Vietnam in 2015 surrendered four ranks to 17th place, with a 2015 score of 1.68 versus 2014's 2.00. The country backslid on the GHG Emissions Reduction Target Indicator.

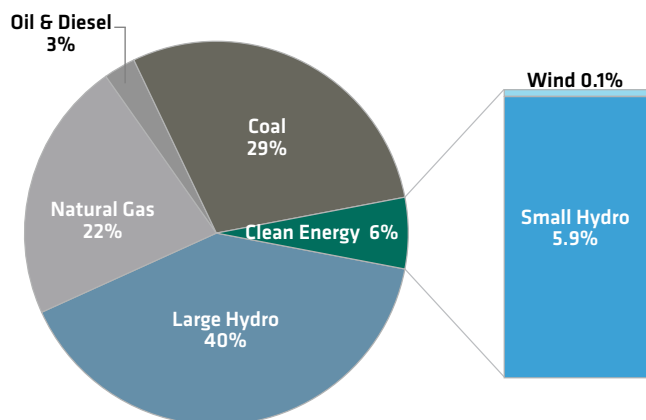
For further information, access www.global-climatescope.org/en/country/vietnam

OVERVIEW

Vietnam relies mostly on large hydropower and natural gas to meet its electricity needs, with the former accounting for 40% and the latter 30% of its total power generation of 148TWh.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

33.8GW total installed capacity



Source: Bloomberg New Energy Finance, Electricity Viet Nam, Electricity Regulatory Authority of Vietnam, Institute of Vietnam, Ministry of Industry and Trade, Ministry of Natural Resources and Environment.

In its 'Power Master Plan 7' approved in June 2011, Vietnam targets an increase in generation of non-hydro renewable electricity from the present 3.5% to 4.5% in 2020 and 6% in 2030. The plan's installation target for wind is 1GW by 2020 and 6.2GW by 2030; for biomass it is 0.5GW by 2020 and 2GW by 2030.

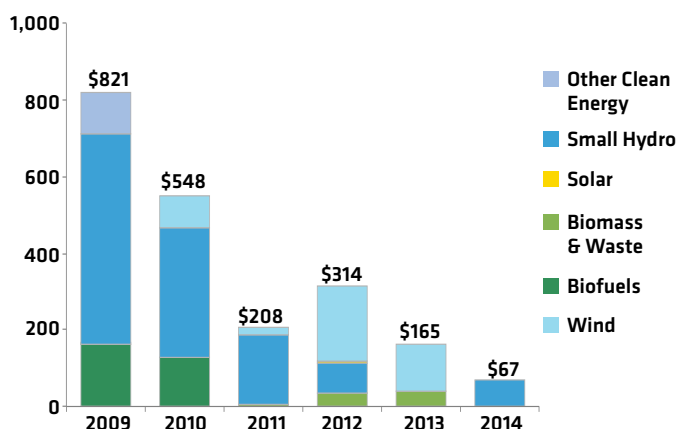
To incentivize those two renewable technologies, feed-in tariffs (FIT) have been introduced. Early in 2011, a FIT of \$0.087/kWh was introduced for wind energy. In 2014 the government extended FITs to new waste-to-energy and biomass. For waste-to-energy

projects using solid waste, a FIT as high as VND 2,114/kWh (\$0.1/kWh) was offered. For biomass-fueled combined heat and power projects, the FIT provided was more modest at VND 1,220/kWh (\$0.07/kWh). The government is considering a FIT for biogas.

A preferential taxation policy offers an income tax rate of 10% for 15 years to all renewable energy technologies, compared to the statutory rate of 25%. Alternatively, project developers can enjoy tax exemption for the first four years and a 50% reduction in tax payable for nine subsequent years. Depreciation on certain renewable energy assets is allowed 1.5 times faster than other property.

ANNUAL INVESTMENT IN CLEAN ENERGY, 2009-2014 (\$m)

\$2.1bn total cumulative investment



Source: Bloomberg New Energy Finance
Notes: Total investment includes: Asset Finance, Corporate Finance and Venture Capital / Private Equity Commitments.

Vietnam's project development has been limited due to high project costs, steep financing rates and soft costs loaded on due to unclear project permit procedures. The government's intended revision of the wind FIT has not taken place after several years' consideration. As of 2014, only 54MW of wind power capacity had been commissioned, though there is a pipeline of 5GW awaiting policy improvements.

KEY POLICIES

Biofuel Blending Mandate	A mandate of 5 million tons of E5 (ethanol 5%) and B5 (bio-diesel 5%), satisfying 1% of its gasoline and oil (diesel, kerosene and other oil derivatives) demand by 2015.
Energy Targets	It is targeting 4.5% of electricity production from renewable energy by 2020 and 6% by 2030; 5.6% of installed capacity by 2020, and 9.4% by 2030.
Feed-in-Tariffs	Vietnam introduced waste-to-energy feed-in tariffs in May 2014: VND 2,114 (\$0.1)/kWh for power projects using solid waste and VND 1,532 (\$0.07)/kWh for landfill gas power projects.
Tax Incentives	These include accelerated depreciation in power generation, import duty exemption for CDM project-related goods, an incentive tax rate of 10% for 15 years, and tax reduction of 50% with a tax exemption of 4 years for new power projects; and tax incentives for biofuels.

Source: Bloomberg New Energy Finance Policy Library