



Views on green hydrogen, from a middle income country

Dr. Minh Ha-Duong Vietnam Initiative for Energy Transition

Green hydrogen: how to reconcile North/South stakes in the development of the future market 2022-11-16



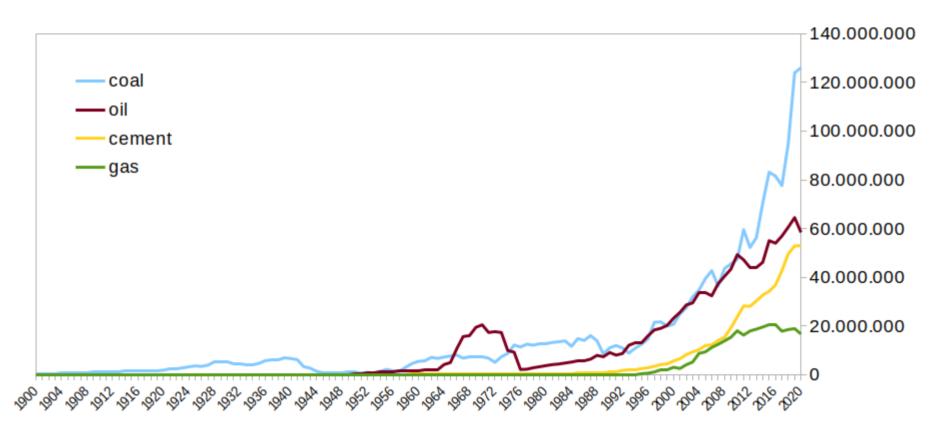


Vietnam aims to achieve net-zero carbon emissions by 2050

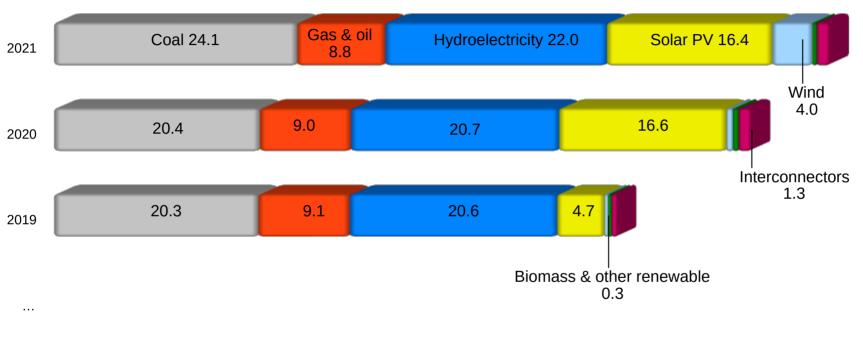


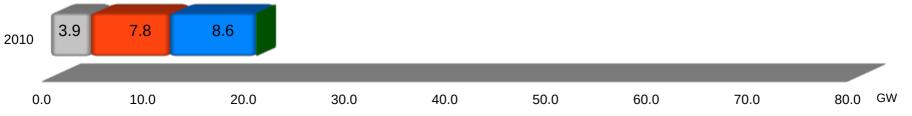
CO2 emissions of Vietnam by source

Annual carbon dioxide (CO₂) emissions from different fuel types, measured in t per year.



Vietnam installed 40GW of power generation capacity in 2010-2021

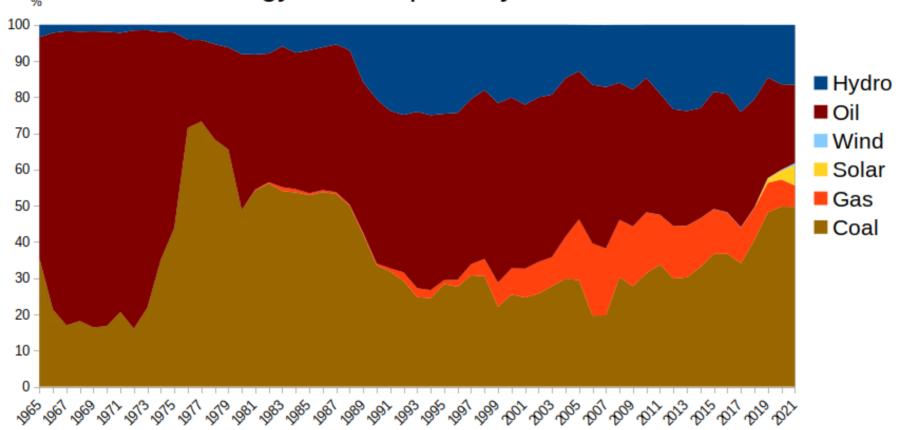








Share of energy consumption by source, Vietnam



Power Plan 8	MW		2020	2030 recommended
Draft 6328	PMax		38.617	93.343
P = 45.528 MW on 2022-06-21	Hydro		20.993	28.946
	Coal	+10GW	21.383	30.127
	Gas	+30GW	7.422	38.830
	Oil & flexible engines		1.603	300
	Wind		538	28.480
	Solar		8.751	11.164
	Solar rooftop, at least		7.755	10.755
	Biomass + cogeneration		325	5.170
	Interconnectors + storage		572	7.700
	Total installed capacity		69.342	159.044

Hydrogen in the proposed power plan

In 2035, start cofiring biomass, NH3, H2.

In 2050:

100% biomass, NH3 coal plants = 25 GW 100% H2 gas power plants = 31 GW

But H2 may not be affordable for the power sector

Vietnam needs a national H2 strategy

Principles: national security, competitiveness and carbon neutrality.

<u>Conclusion</u> Priorities for a national H2 strategy

- 1. Decarbonize existing production
- 2. Grow it to meet domestic demand
- 3. Produce locally cheaper than imports

Thank you!







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