A new North-South climate cooperation mechanism: Just Energy Transitions Partnerships (JETP)

Ha-Duong Minh, 2023-04-04



Outline

- 1. Introduction
- 2. Just Energy Transition Partnerships
- 3. South Africa
- 4. Vietnam
- 5. Concluding remarks



Minh Ha Duong

Senior researcher, International expert on energy, development and environment.

Talks about #wind, #solar, #vietnam, #economics, and #energystorage

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École des hautes études en sciences sociales (EHESS) Filter ______ Toggle <u>doi</u>, <u>OAI</u>, URL

Minh Ha-Duong's Publication List

Clean Energy and Sustainable Development



About me

Hi! I am a senior scientist interested in energy, climate change, society, economics and uncertainty.

My values are Excellence, Integrity and Kindness.

My mission as a senior researcher in environment and development is to help people and groups grow up to make the world a better place.

I founded the Vietnam Initiative for the Energy Transition (<u>VIET</u>) quasiindependent think tank in August 2018.

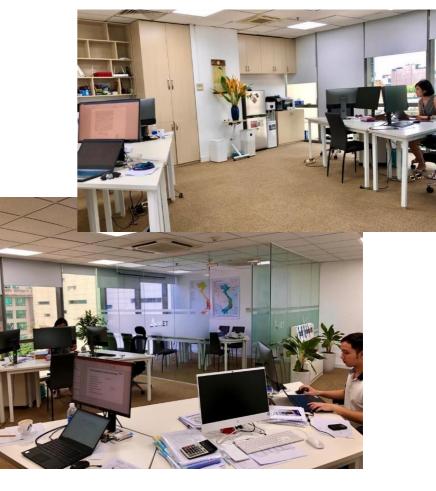
I founded the Clean Energy and Sustainable Development lab (<u>CleanED</u>) at the University of Science and Technology of Hanoi (<u>USTH</u>) in December 2014.

Peer-reviewed articles

- Ha-Duong, Minh. 2022-10. <u>"A study on financial mechanisms to develop the power system in Vietnam"</u>. PetroVietnam Journal 10/2022, pp. 59-69. doi: <u>10.47800/PVJ.2022.10-08</u>. eprint: <u>https://hal.science/hal-03836275</u>.
- 46. Truong, An Ha, Ha-Duong, Minh, and Tran, Hoang Anh. 2021-11-19. <u>"Economics of co-firing rice straw in coal power plants in Vietnam"</u>. Renewable and Sustainable Energy Review 154, p. 12. doi: <u>10.1016/j.rser.2021.111742</u>. eprint: <u>https://hal.science/hal-03277278</u>.
- Ha-Duong, Minh. 2021-10-01. <u>"On technology transfer and utility scale power storage"</u>. IAEE Energy Forum 30, pp. 30–31. eprint: <u>https://hal.science/hal-03361262</u>. URL: ...
- 44. Ha-Duong, Minh and Nguyễn, Hoai Son. 2021-07-15. <u>"Subjective satisfaction and objective electricity poverty</u> reduction in Vietnam, 2008-2018". Fullbright Review of Economics and Policy 1, p. 18. doi: <u>10.1108/FREP-03-2021-0022</u>. eprint: <u>https://hal.science/hal-03160911</u>.
- 43. Ha-Duong, Minh. 2020-01. <u>"Stranded assets risk derails Vietnam's plan for new coal power plants"</u>. IAEE Energy Forum 102, pp. 27–29. eprint: <u>https://hal.science/halshs-02263622</u>. URL: ...
- 42. Truong, An Ha, [...], and Ha-Duong, Minh. 2019-04-01. <u>"Reducing emissions of the fast growing Vietnamese</u> <u>coal sector: the chances offered by biomass co-firing"</u>. Journal of Cleaner Production 215, pp. 1301-1311. doi: <u>10.1016/j.jclepro.2019.01.065</u>. eprint: <u>https://hal.science/hal-01974493</u>.
- 41. Nguyễn, Hoai Son and Ha-Duong, Minh. 2018-01-31. <u>"Family size, increasing block tariff and economies of scale of household electricity consumption in Vietnam from 2010 to 2014."</u> External Economics Review / Tạp chí Kinh tế Đối ngoại (renamed Journal of International Economics and Management since 2019) 101, pp. 83-94. eprint: <u>https://hal.science/hal-01714899</u>. URL: ...
- 40. Ha-Duong, Minh and Nguyễn, Hoang Anh Trinh. 2017-11. <u>"Two Scenarios for Carbon Capture and Storage in Vietnam"</u>. Energy Policy 110, pp. 559-569. doi: <u>10.1016/j.enpol.2017.08.040</u>. eprint: <u>https://hal.science/hal-01597515</u>.
- 39. Ha-Duong, Minh et al. 2016g. <u>"Social acceptability of large infrastructure projects in Vietnam"</u>. Field Action Science Reports 14, pp. 72-81. eprint: <u>https://hal.science/hal-01214748</u>. URL: ...







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THE CONFERENCE UK AT COP27

NEWS

02.11.2021

POLITICAL DECLARATION ON THE JUST ENERGY TRANSITION IN SOUTH AFRICA

Declaration from the Governments of the Republic of South Africa, the United Kingdom of Great Britain and Northern Ireland, the United States of America, the Republic of France and the Federal Republic of Germany, and the European Union.

GOV.UK ✓ Menu Home > Environment > Climate change and energy > Climate change international action > Vietnam's Just Energy Transition Partnership: political declaration Foreign, Commonwealth & Development Office Policy paper Political declaration on establishing the **Just Energy Transition Partnership with Viet Nam**

Published 14 December 2022







Administration Priorities The Reco

NOVEMBER 15, 2022

Indonesia and International Partners Secure Groundbreaking Climate Targets and Associated Financing

BRIEFING ROOM

STATEMENTS AND RELEASES

Today, at the Partnership for Global Infrastructure and Investment (PGII) event at the G20 Summit. President Joko Widodo of Indonesia and leaders of the International Partners Group (IPG) of likeminded countries, co-led by the United States and Japan, and including Canada, Denmark, the European Union, France, Germany, Italy, Norway, and the United Kingdom, issued a Joint Statement, launching a Just Energy Transition Partnership (JETP) developed with Indonesia during its G20 Presidency. The landmark

ÉLYSÉE Actualités Agenda Présidence Élysée Écrire au Président

Lettre d'informatio

Anglais Français

Partenariats pour une transition énergétique juste en Afrique.

Publié le 18 février 2022



- Are a **high-level political 'deal'**. Quality dialogue, focus over 10 years+.
- Embrace a **programmatic** approach. Credible reform plan, strong central government offices.

Strategically **engage the private sector.** Domestic policy-makers need to engage with the private sector, while avoiding political capture by vested interests.

Source: Hadley et al. (2022)

G20 country platforms

1. Country platforms are a tool to support country's sustainable development. They should be **country owned and country led**, and be designed and implemented in line with country's reform and development policies and priorities.

2. Country platforms should be **customized and adapted** to local context and country needs, specificities, priorities and legislation.

3. Country platforms should aim at fostering **a wide mobilization of development partners**, on a voluntary basis, **including the private sector** where appropriate.

4. Country platforms should foster the collaboration and synergies among development partners by helping the **sharing** of appropriate and necessary information

5. Country platforms will **follow up** as appropriate on platforms' activities and results, so as to help draw lessons from experience, support a "learning by doing" progress curve

Source: G20 reference framework for effective country platform

Paris Agreement NMA

- **6.2** allows country-to-country trade of Internationally Transferred Mitigation Outcomes (ITMOs).
- **6.4** creates a new international carbon market with public and private participation. CDM Sustainable Development Mechanism.

6.8 establishes a framework for Non-Market Approaches: voluntary cooperative actions not reliant on market-based approaches and not including transactions or quid pro quo operations. International Partner Groups (IPG) = G7+

China is absent:

- China not in UNFCCC Annex I
- JETP \subset Partnership for Global Infrastructure and Investment (PGII by G7).

PGII competes with the Belt and Road Initiative (BRI by China).

Claims to cooperate better: less tied aid.

Loan bundling problem

"If you think of the history of Western lending, sometimes it's not for the full benefit of the people in the countries [being lent to]. Even World Bank loans haven't always been for the best that could have been done in a country.

So what we're trying to do, and I think everyone should be trying to do, is improve the quality of the lending.

One of the techniques is to unbundle the loan, meaning if there's an investment project, let's say you're building a train, describe the project and what the cost will be. And then separately, arrange the financing.

If you bundle them together, it makes it very hard to know, am I getting a good deal on the train or on the financing."

WB President David Malpass, BBC News, 2023-04-02

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South Africa

Power plants: coal and old (>40yr)

10.5 GW to decommission by 2030

State utility **ESKOM** needs bail out

Just Transition talks since 2011

Just, quésaco?

- J1: Labor-oriented concept, historical
- J2: Integrated framework for justice, distributional
- J3: Theory of socio-technical transitions, dynamic systems
- J4: Governance strategy, political economy
- J5: Public perception, managerial

JETP declared at COP26

- Accelerate just transition and decarbonisation of electricity system, + Green H₂ and electric vehicles
- Mobilise \$8.5 billion over the next three to five years, initially
- Most ambitious possible NDC target

Government of SA & International Partner Group (IPG), 2/11/2021

The reforms at 12 monts

Drop limit for behind-the-meter PV projects

2x next wind and solar bid window to 5.2 GW

PV local contents requirement $100\% \rightarrow 35\%$

Waive EIA in selected areas

Accelerate ESKOM unbundling

Prepare a rooftop solar FIT

Setup National Energy Crisis Council to be chaired by the Director-General in the Presidency's Office.₁₇

The offer to South Africa

US\$ millions	Grants / Technical Assistance	Concessional loans	Commercial Loans	Guar- antees	Total (source)
Climate Investment Fund	50	2 555	0	0	2 605
European Union – EIB	35	1 000	0	0	1 035
France – AFD	2.5	1 000	0	0	1 002.5
Germany – GfZ and KfW	198	770	0	0	968
United Kingdom – BII, PIDG, private sector	24	0	500	1 300	1 824
United States – USTDA, USAID, Power Africa, the State Department and DFC	20.15	0	1 000	0	1 020.2
Total (instrument)	329.7	5 325	1 500	1 300	8 455.7

Lessons learned?

- Years of mismanagement \rightarrow electricity crisis \rightarrow national disaster
- JETP process failed transparency expectations from previous planning
- IPG pledge small % Investment Plan \$98.7 billion

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Development success

	2015	2020		
Population	92,2 million	98,5 million		
GDP	2 596 USD / person	3 717 USD / person		
Electricity use	1 535 kWh / person	2 211 kWh / person		
CO2 emissions	1 960 kgCO2 / person	2 971 kgCO2 / person		



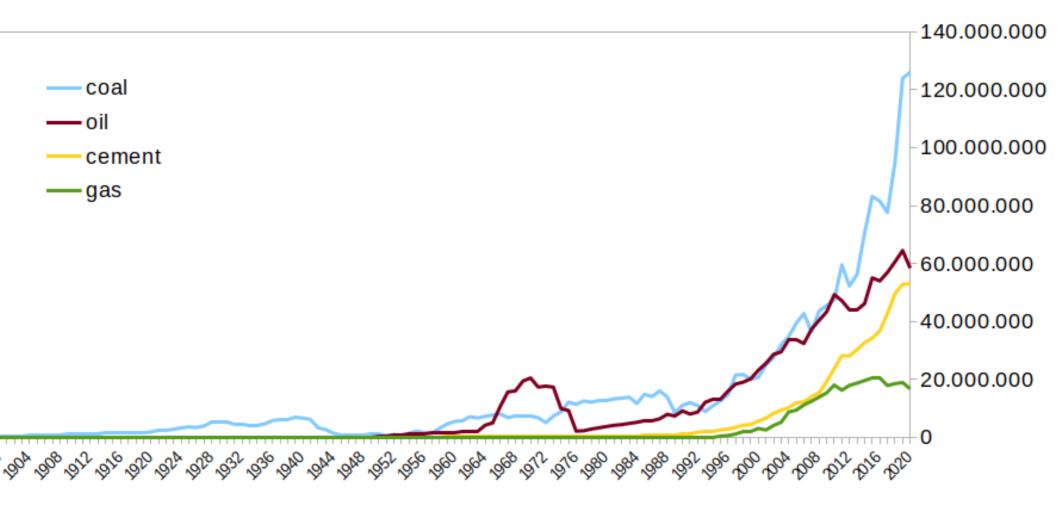
Vietnam aims to achieve net-zero carbon emissions by 2050

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CO2 emissions of Vietnam by source

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

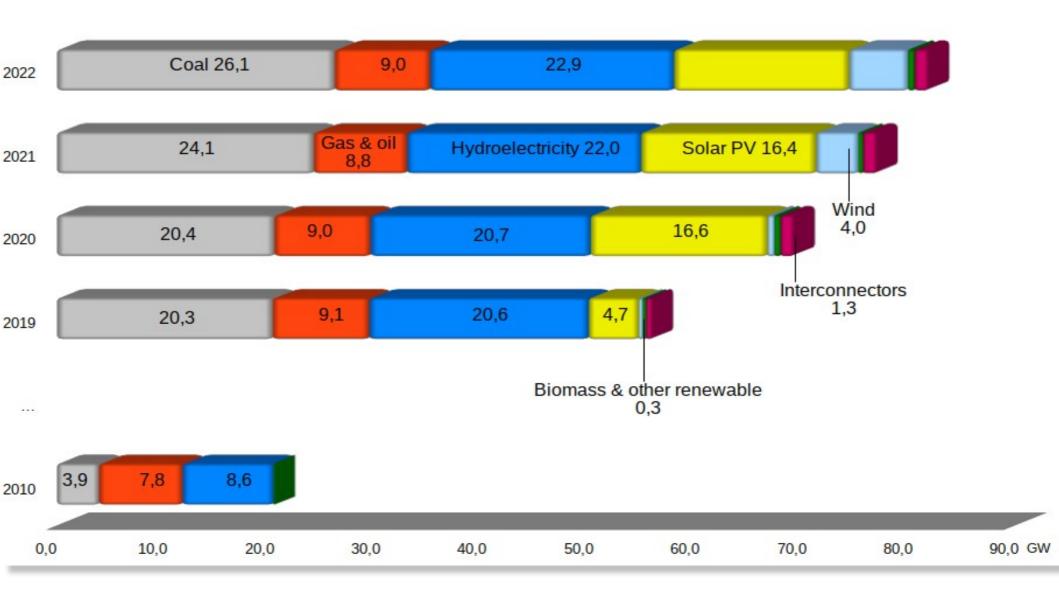


Control & market-orientation

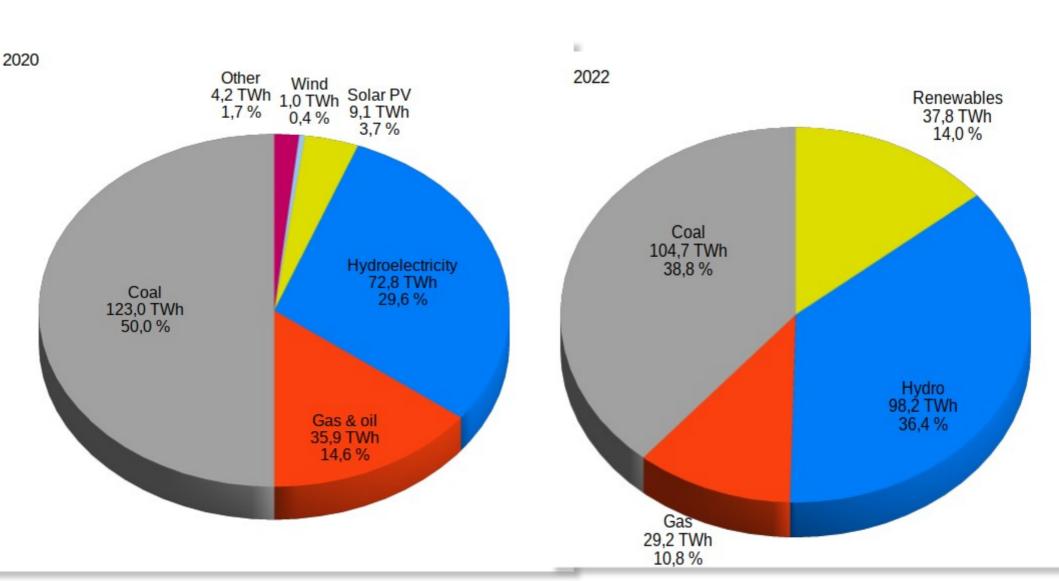
Tension between the urgency of the energy transition and the carefullness required by good governance

- Party leadership
- State ownership
- Comprehensive planning

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



2022 good hydro + new renewables = 48% carbon free electricity



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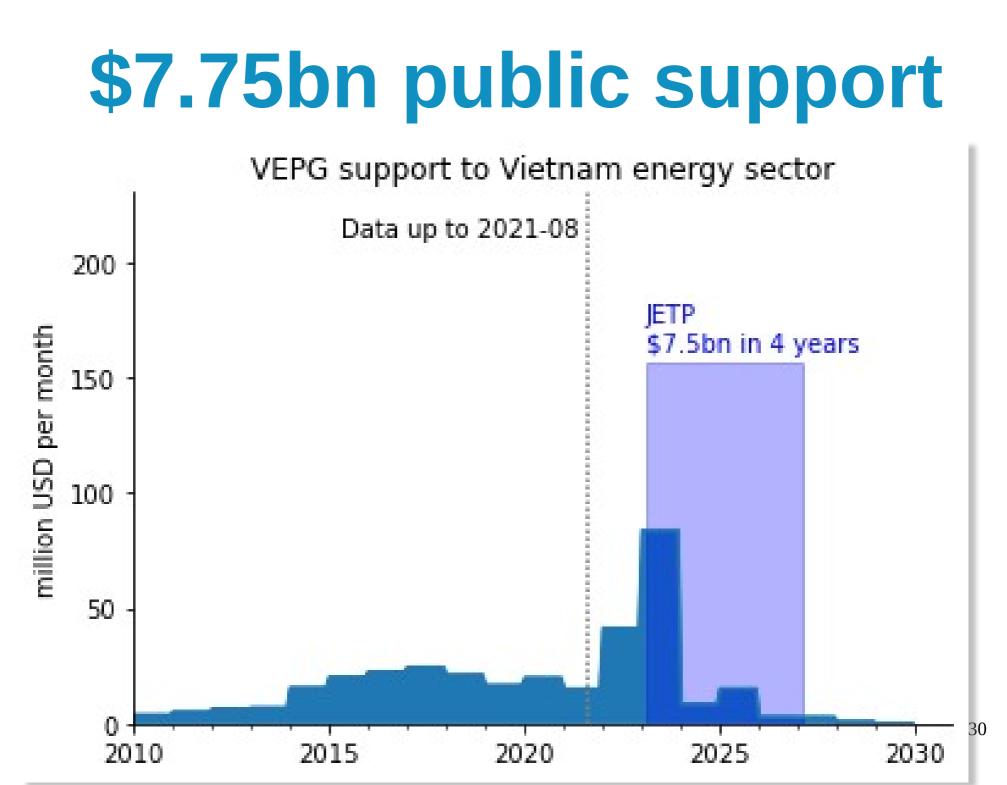
Vietnam JETP deal

Negociations started at COP26, ended with Political Declaration at EU-ASEAN summit Brussels on 2022-12-14

- IPG countries mobilize \$15.5 billion
- Vietnam aligns its power sector development with its net-zero pledge

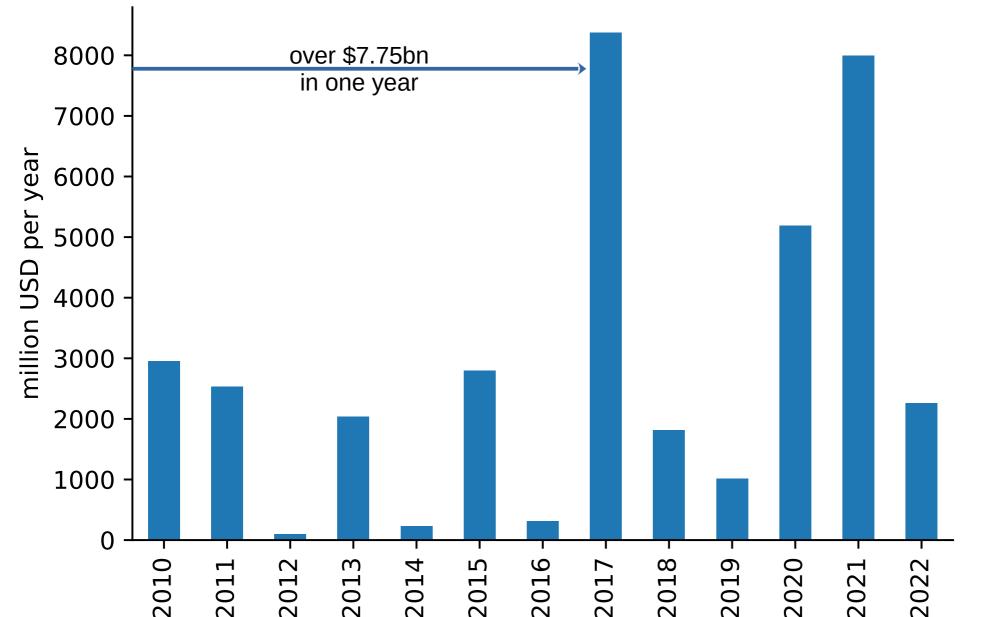
G7+ pledge

- IPG to mobilize \$7.75 billion in public sector financing at more attractive terms than private capital markets.
- A consortium of private financial institutions, the Glasgow Financial Alliance for Net Zero (GFANZ) to raise at least \$7.75 billion in private financing.
- VN Power sector CO2 emissions to peak at 170 Mt in 2030 instead of 240 Mt in 2035.
- VN to limit coal power capacity to 30.2 GW by 2030 from a projected 37 GW.
- Renewable sources including hydroelectricity will account for at least 47% of electricity production in 2030.



\$7.75bn+ private capital

FDI in Vietnam electricity supply sector



Vietnam pledge

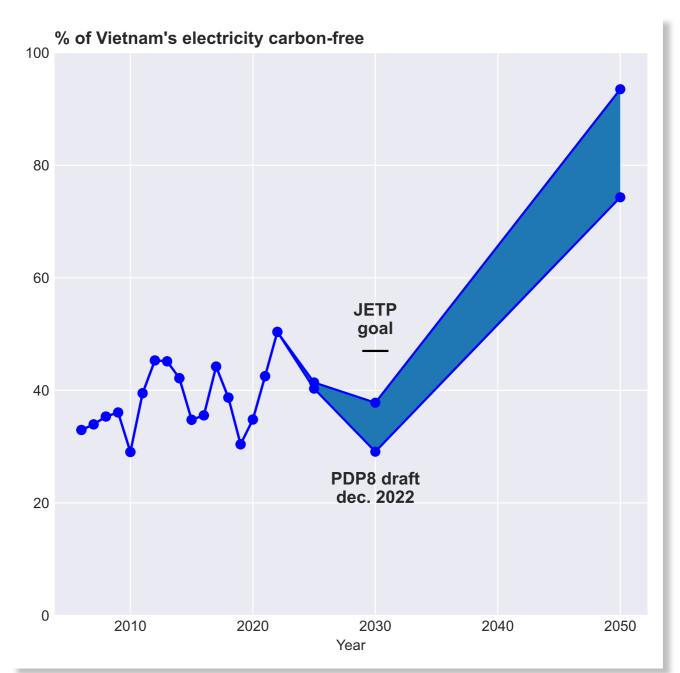
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30.2 GW coal cap: easy?

- The current plan is 37 GW in 2030
- But five projects (6.8 GW) lack a commited investor

• Further phasedown not so easy: only 3.9 GW older than 2010

47% RE: need reforms



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Peaking in 2030: feasible

Net-Zero scenario of Vietnam's Energy Outlook 2021 report*

- 38 GW PV and 21 GW wind by 2030
- Storage needed after 2030
- Similar energy system costs
- Imported coal capacity factor <50%

* Electricity and Renewable Energy Authority (EREA) Ministry of Industry ₃₅ and Trade (MOIT) with the Danish Energy Agency (DEA)

Urgent work ahead

JETP Ressource Management Plan ASAP, for next COP

MOIT to align Power Development Plan 8 on the net-zero goal

Time to start thinking coal phaseout

Realistic 2050 vision with reasonable trade / H2 / CCUS / biomass / nuclear

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Challenges

Loan-based offer not so interesting State-Owned Entreprise debt is public too

Integrity and Continuity

Foreign Public Debt peril

Greece GDP/person was \$31 902 in 2008 and \$20 658 in 2022

The Asian Financial Crisis devaluations in 1997 hit Thailand, Malaysia, the Philippines, Indonesia and South Korea.

Causes: government overspending and building up external debt, banks expanding credit to low quality loans, real estate bubble, corporations and banks borrowing abroad at short maturities exposing them to exchange rate risks.

Vietnam debt prudence

	2017	2018	2018	2020	2030 Limit
Public debt/GDP (%)	61,4	58,3	55,0	55,9	60
Government debt/GDP (%)	51,7	49,9	48,0	49,9	50
Gov. debt service / budget revenue (%)	19,7	17,1	17,4	21,2	25
National external debt/GDP (%)	49,0	46,0	47,1	47,9	45

External debt disbursements from the government decreased from 3.5 billion USD in 2017 to 2.2 billion USD in 2020.

One more partnership?

- 2017: Vietnam Energy Partnership Group (VEPG) country platform
- 2021: Southeast Asia Energy Transition Partnership regional platform
- 2023: ADB Energy Transition Mechanism
- + Denmark, Germany, France, UK, Japan, US, Australia, China...

JETP Vietnam for the win

Strong cooperation momentum

Plausible that ~35% of power sector investment comes from G7+

Known recipe: direct power purchase agreement, auctions, grid code, tariffs. Plus training & technology transfer.

Regulations Planning Biomass Wind Grid



Research Expertise Consultancy Training

Credibility Excellence Happiness Responsibility Interdependence

an active INDEPENDENT THINK TANK since 8/2018

Dialogue Scenarios Modeling Economics Integrated assessment International experience

2020 Vietnam energy balance (IEA)

