

Wind Energy Development in Vietnam: the policy risk

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VIET think tank mission:

Accelerate the
Transition of Vietnam
toward a
Carbon-neutral Society

Offshore wind studies conducted by VIET

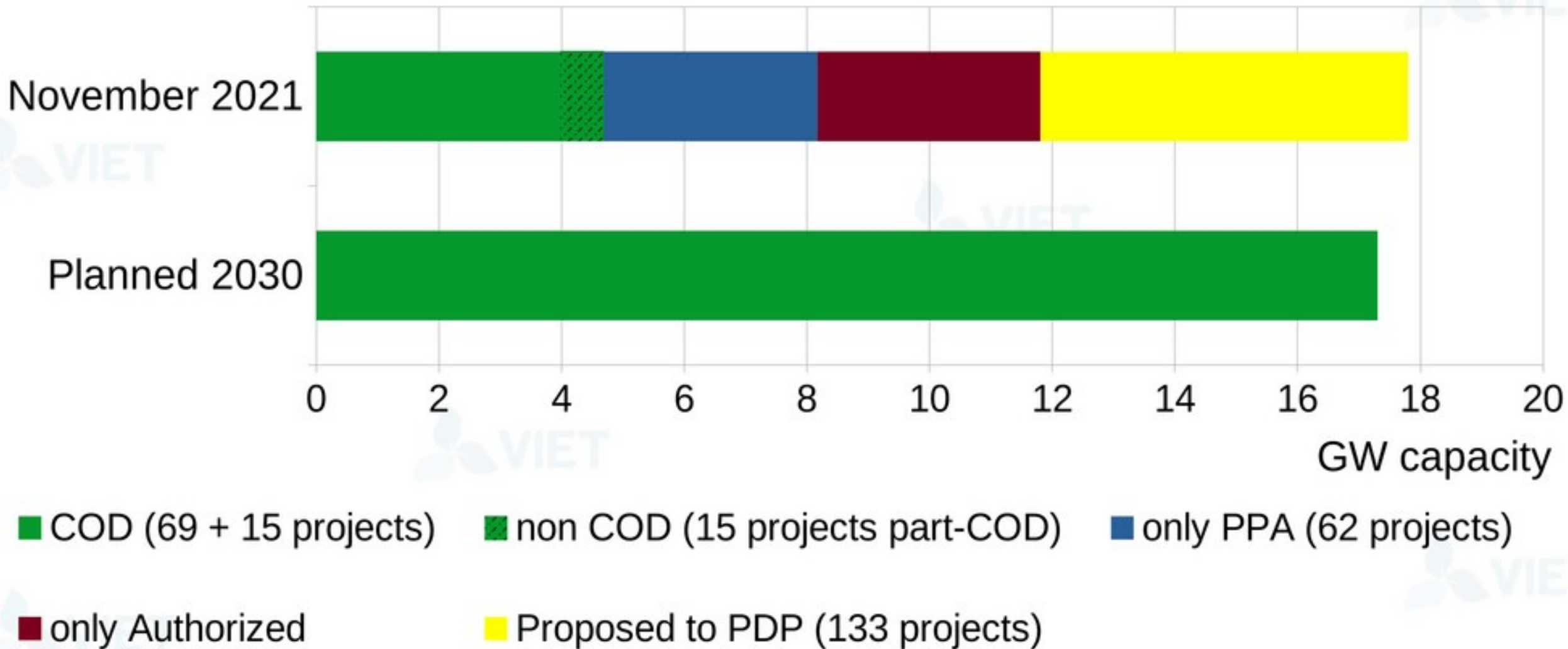


Mitigating the wind projects policy risk

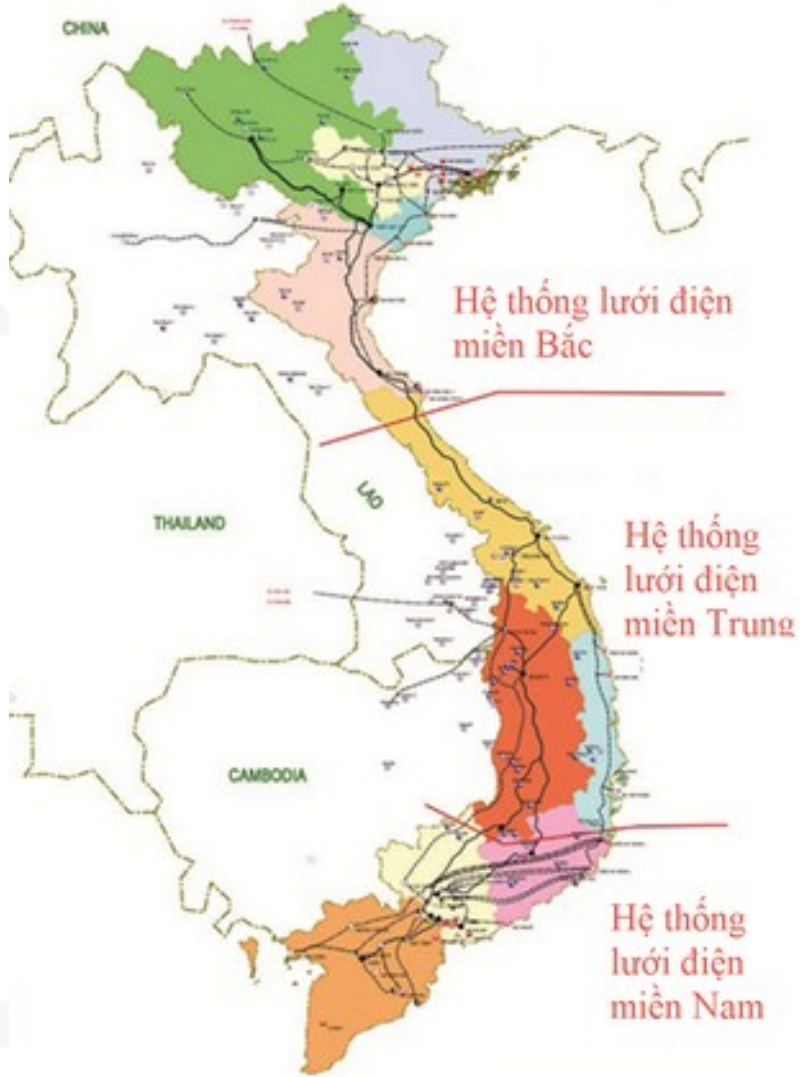
1. Onshore: locate away from the crowd
2. Offshore: increase the plan goals

1. Onshore wind

The plan fits all projects

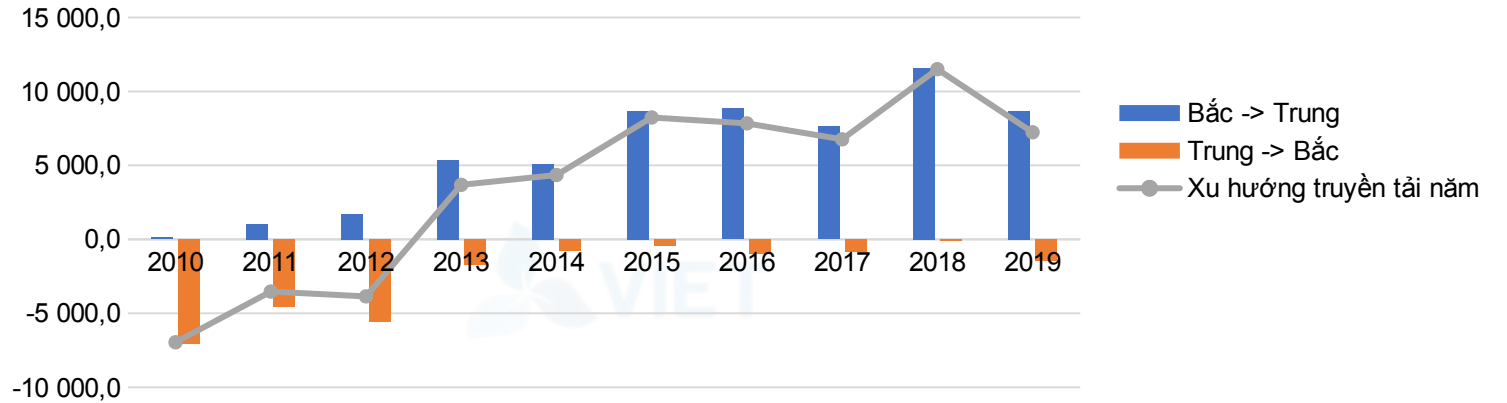


Now: power flows North → Center → South

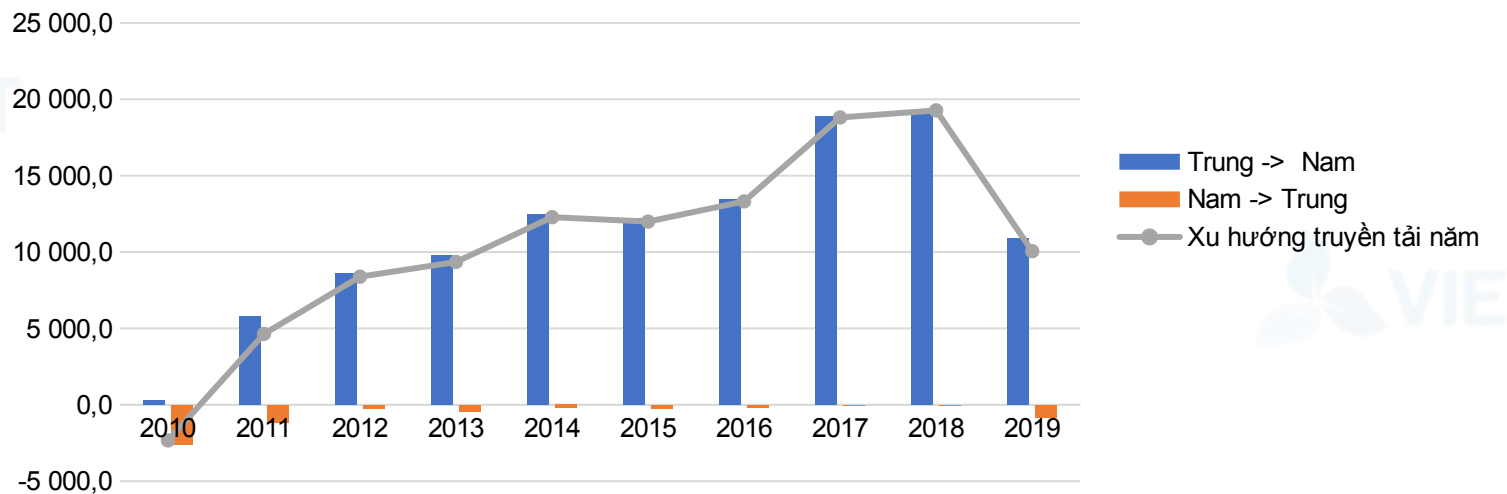


Nguồn: EVN, 2017

North → Center



Center → South



Nguồn: IE, 6/2020

Future: Too much electricity in the Center

| | 2020 | 2025 | 2030 |
|---------------|----------------|-----------------|-----------------|
| North→ Center | 3.0 TWh | 3.5 TWh | 0.6 TWh |
| Center→ North | 3.8 TWh | 6.4 TWh | 14.9 TWh |
| Center→ South | 9.9 TWh | 15.1 TWh | 18.7 TWh |
| South→ Center | | 2.0 TWh | 6.6 TWh |

Curtailment in the Center

Worst case: No transmission upgrade, Sunday of June 2022

In Central Highlands

Wind runs at **40%** capacity

Solar at **60%**

In South-Central

Variable renewables at **74%** capacity in Ninh Thuan, Binh Thuan

They run at **44%** in Binh Dinh, Phu Yen, Khanh Hoa

2. Offshore: the oversupply

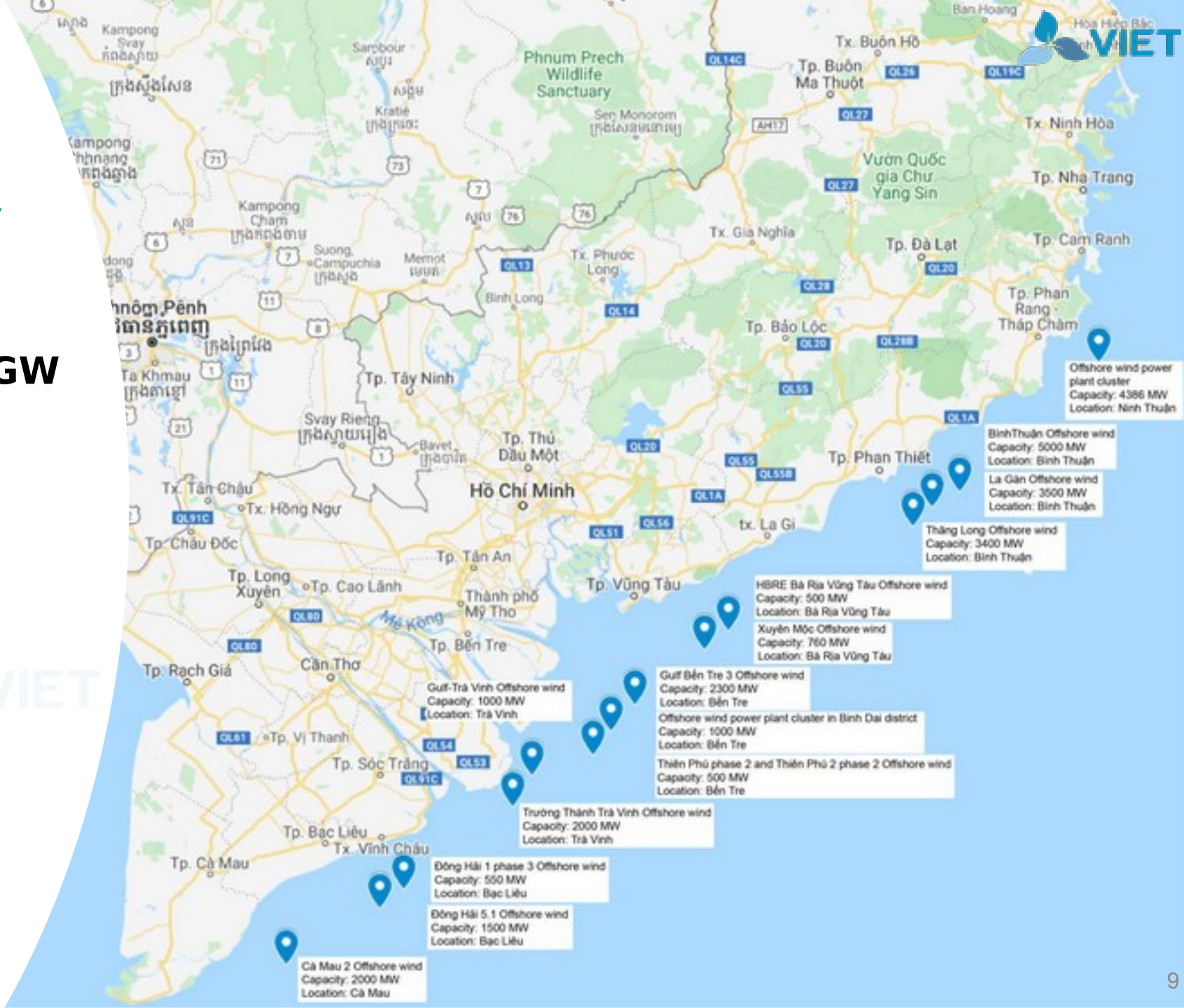
14 projects here for 28,4 GW

vs.

November PDP8 goals

4 GW by 2030

36 GW by 2045



Offshore wind : the policy risks

- 1) Unclear procedures and uncertainty, no proven route to market yet
- 2) Low investor confidence due to unclear commercial conditions and long term policy goals
- 3) Electricity grid capacity insufficient for large wind farms
- 4) Capacity expansion based on new fossil fuel power plants

Political YES to adopt Offshore Wind Energy in Vietnam



Resolution 36-NQ/TW

Vietnam's Marine Economy Sustainable Development Strategy to 2030 with a vision to 2045

2018

Resolution 55-NQ/TW

National Energy Development Strategy to 2030, with a vision to 2045

2020

Decision 203/QĐ-TTg

Establish the National Steering Committee on implementation of the Vietnam's Marine Economy Sustainable Development Strategy to 2030 with a vision to 2045

“Develop supporting policies and breakthrough mechanisms for the development of offshore wind power in association with the implementation of the Vietnam's Marine Economy Sustainable Development Strategy”

(Source: Resolution 55-NQ/TW)



But policy support remains in the work

2019 2020 2021 2022 2023 2024 2025



Oct. 2019 Power Development Plan 8 to 2030, vision 2045

Dec. 2019 National Energy Plan to 2030, vision 2050

Sea Ports System Plan to 2030, vision 2050

Marine Spatial Master Plan to 2030, vision 2045

Land Use Master Plan to 2030, vision 2050

National Master Plan to 2030, vision 2045

Development of Competitive Power Market

◆ Wholesale market open

◆ Retail market to open

EIA Regulation

Sea Surface leasing regulation

Auctioning scheme for RE energy

Direct Power Purchasing Agreement Pilot

Renewable Portfolio Standard

Emission Trading System

Roadmap to reach 10GW of Offshore wind (2023-2030)

Source: Phuong H. Nguyen, Van Nguyen Dinh et al. (VSOE 2021) Options for zonation and grid integration of offshore wind in Vietnam.

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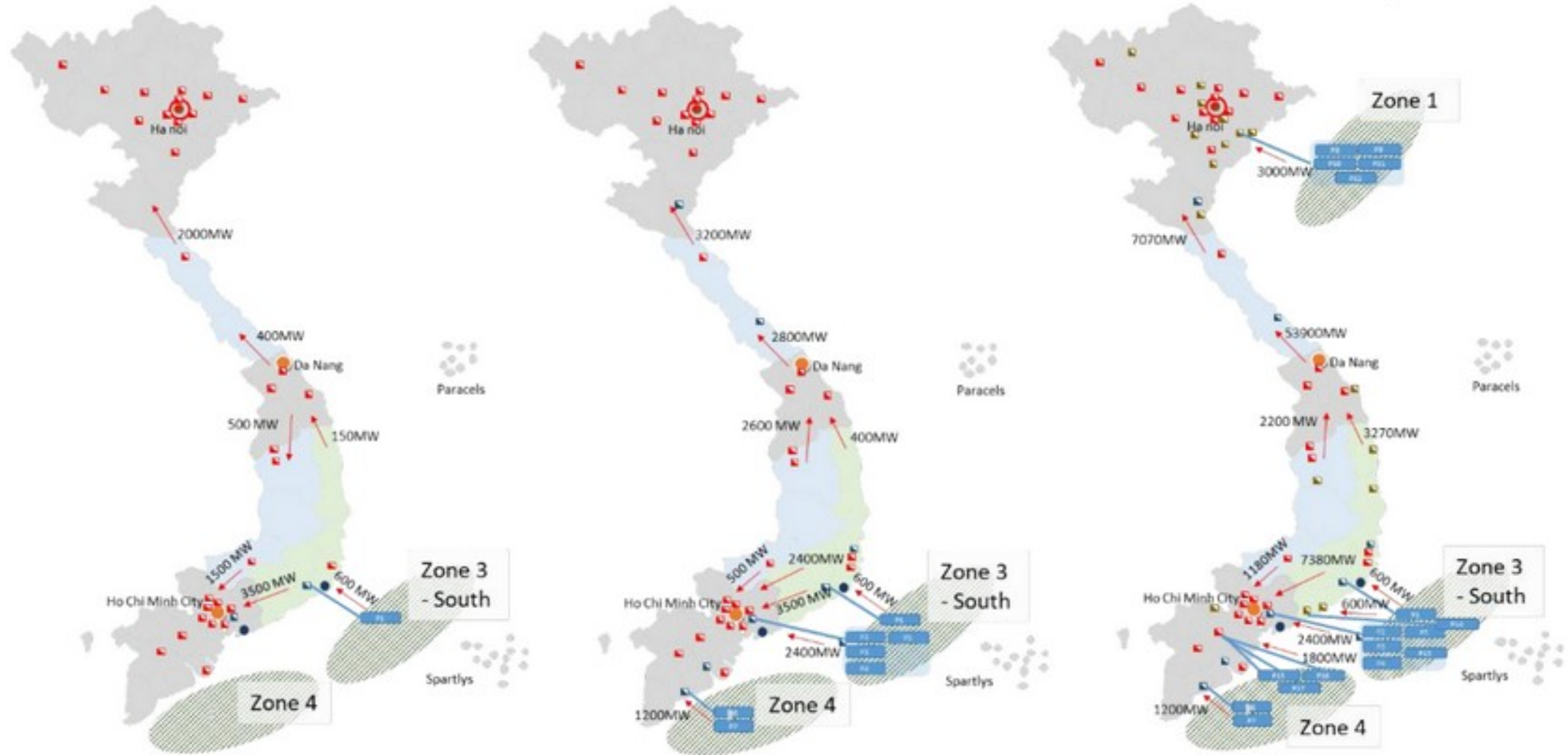
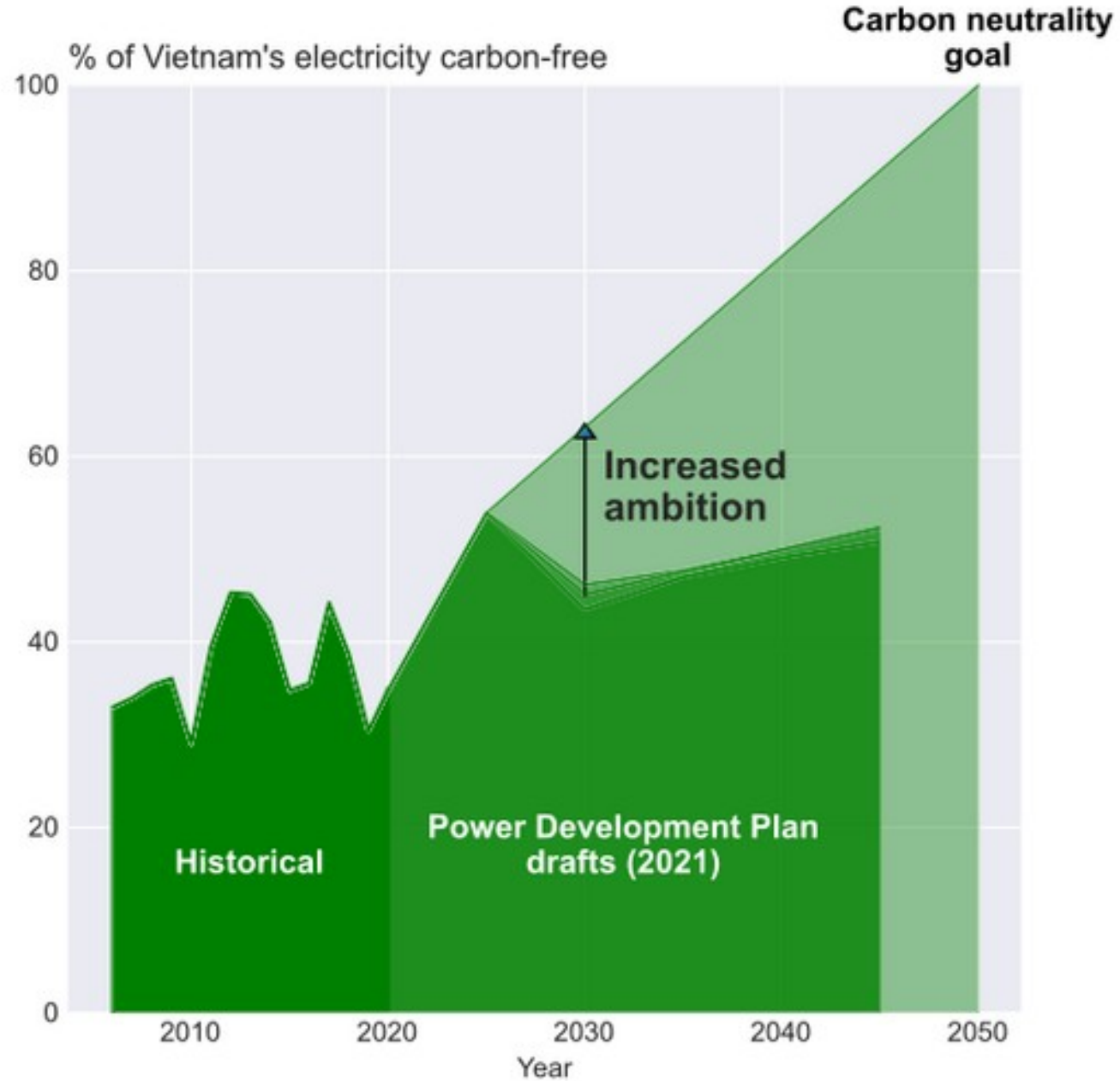
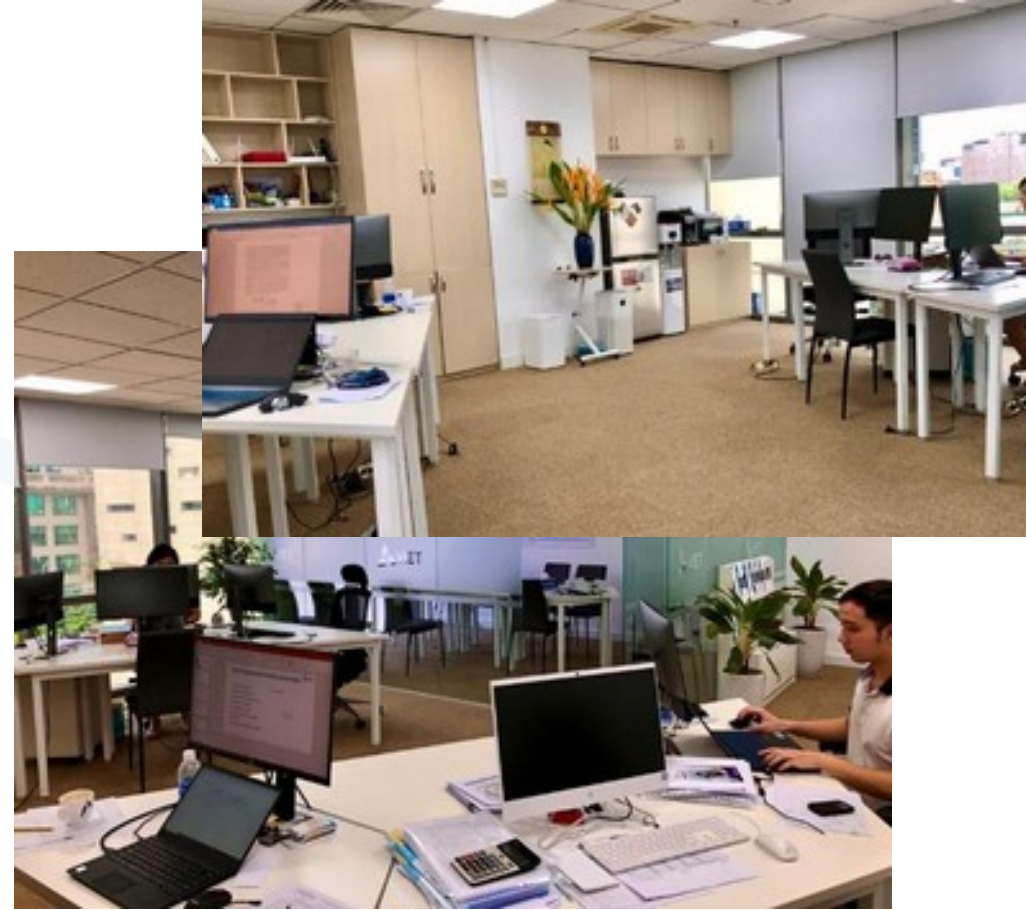


Fig. 3. Load flow snapshot in 2023, 2025 and 2030 (from left to right) - Cases of high renewable sources including max capacity from OWFs.

Conclusion: increase 2030 ambition in PDP8A?



Thank you for your attention!



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