

Clean Energy Transition In Vietnam: Current Status and Perspectives

Presenter:

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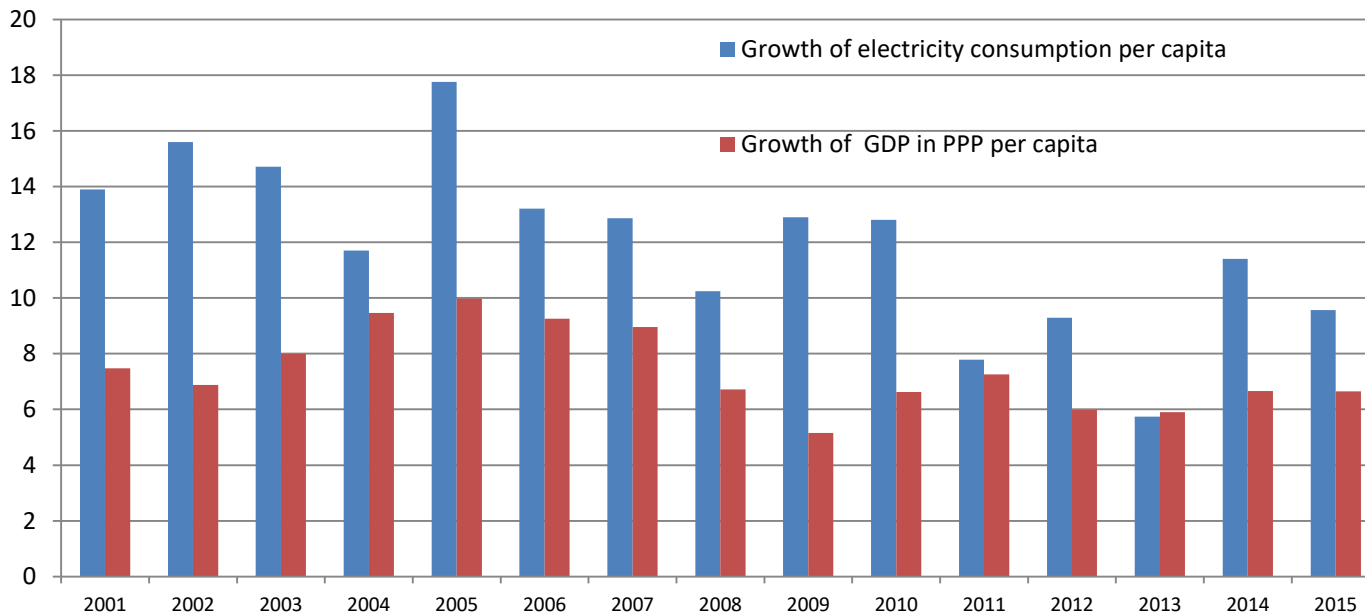
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- Vietnam's context toward clean/renewable energy transition
- The drivers of clean/renewable energy transition in Vietnam
- The Future of Clean Energy in Vietnam: overcome challenges for RE transition

1. Vietnam's context toward clean/renewable energy transition

- High economic growth in Vietnam has associated with a high growth of energy consumption: *1.62 time higher between 2001-2015 on average.*

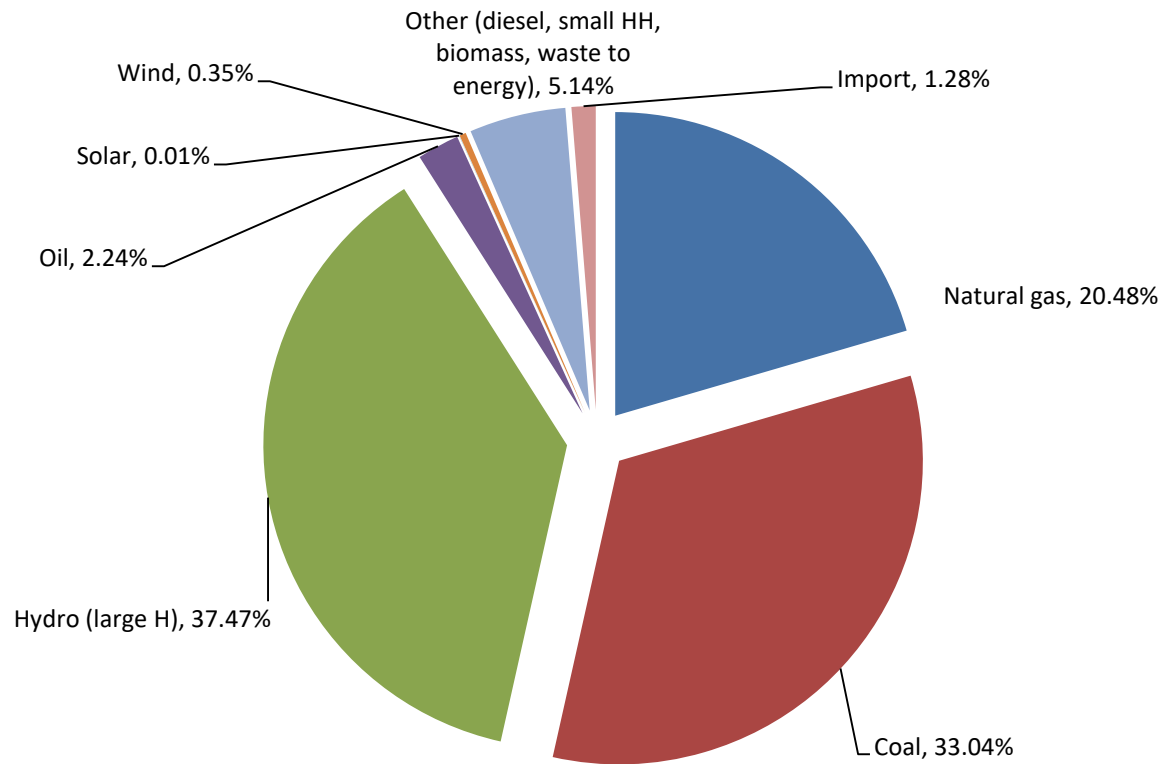


Source: calculated from World Bank's and EIA data

- But, the trend of this correlation tends to decrease: 2001-2005: 1.76 times; 2006-2010: 1.69 times; 2011-2015: 1.35 times

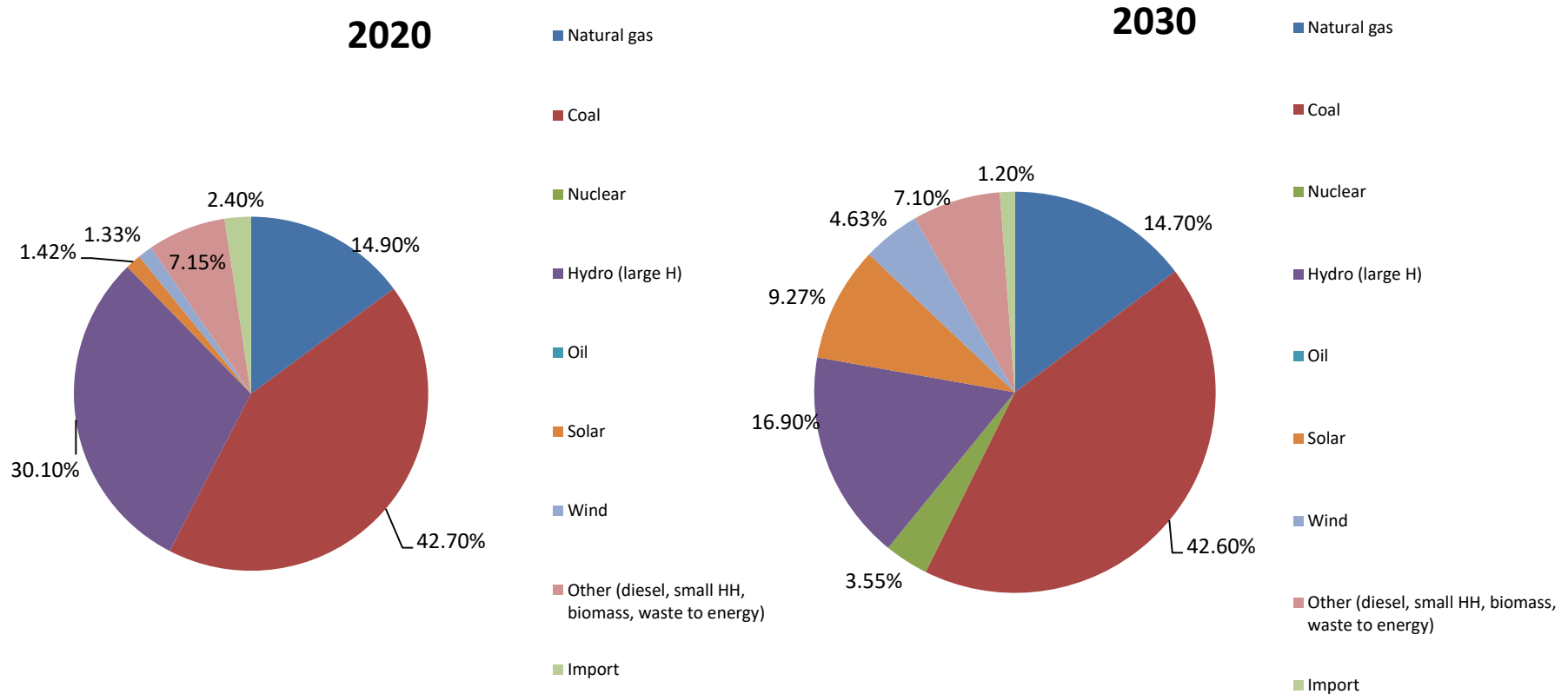
1. Vietnam's context... (2)

- Energy development in the country has been largely depended on fossil fuels and hydro-power: **In 2015**, their shares recorded at 70.5%. Non-hydro Renewable energy presents a very limited share : 0.4%.



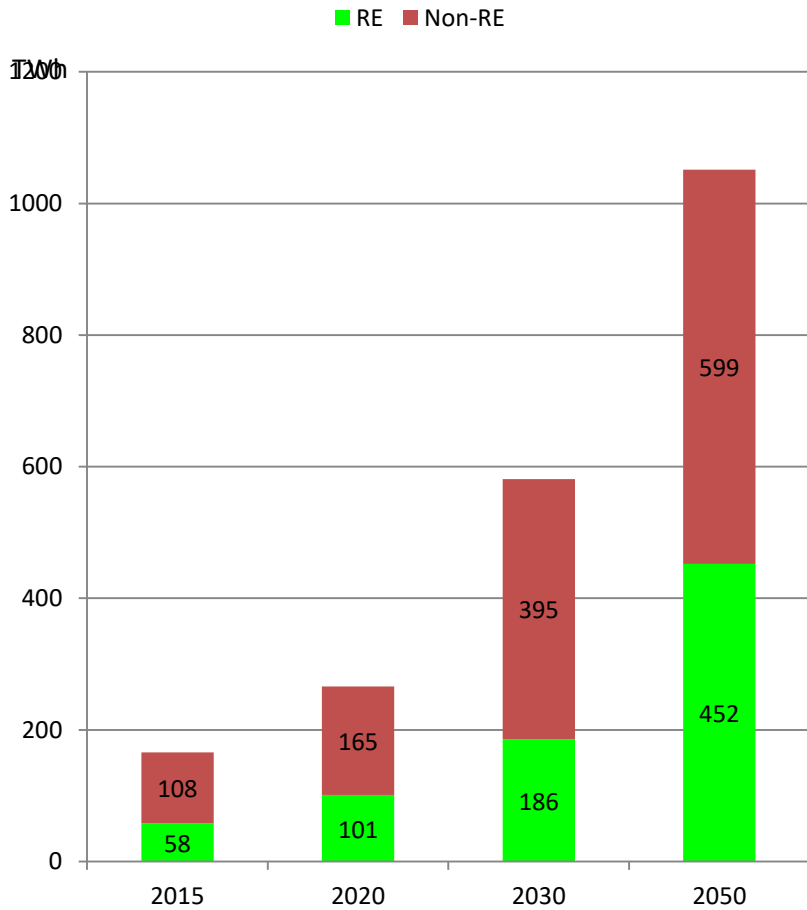
1. Vietnam's context... (3)

- The revised PDP VII (2016) has planned to increase the share of renewable energy sharply, from 0.4% now to 7% by 2020 and 14% by 2030.

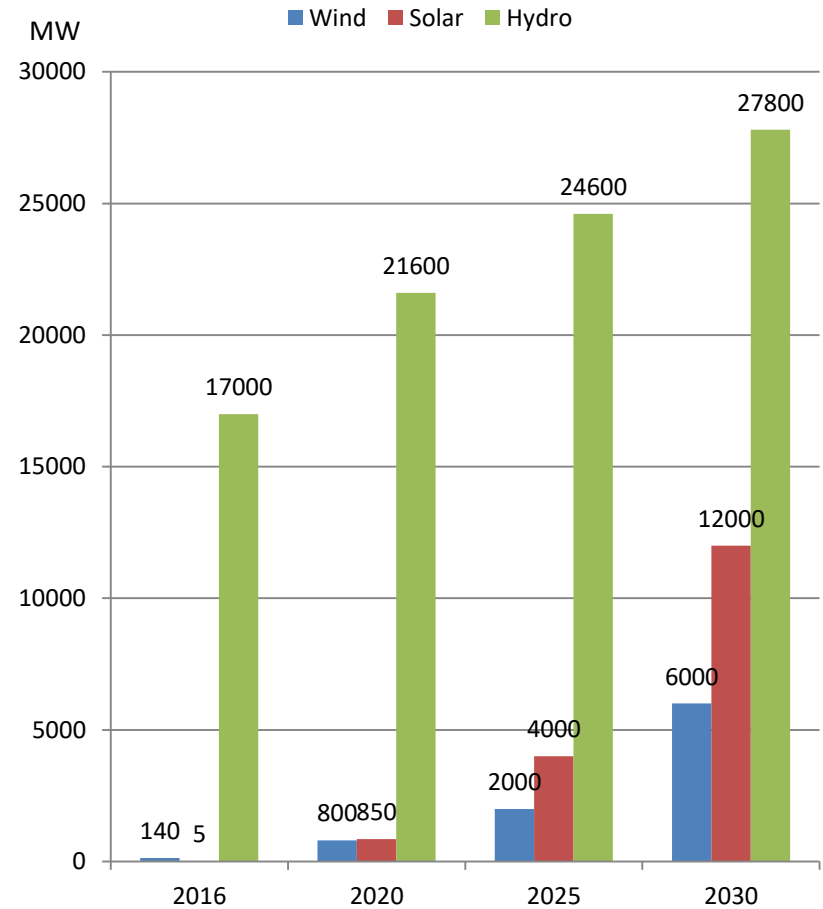


However, share of coal power is expected to be as high as 42.6% in 2030.

Targets set for RE development



Source: *Strategy of RE development (2015)*

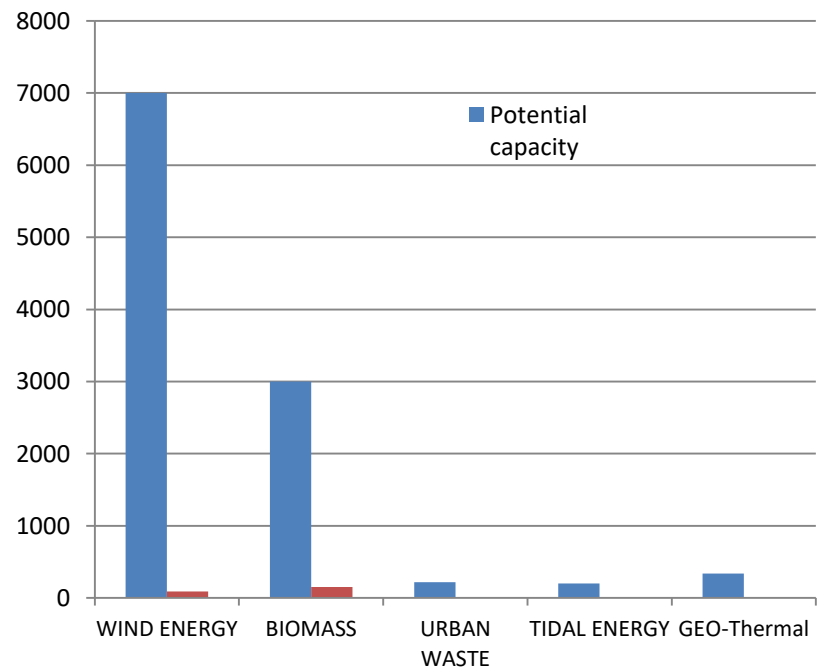


Revised EDP VII (2016)

RE transition dilemma:

- ✓ On one hand, Vietnam's Revised PDPVII planned 42 GW of new coal capacity (22 coal-fired plants)
- ✓ If all these coal-fired power plants were built, VN would have the fourth largest number of coal-fired power plants in the world
- ✓ Energy development based on fossil fuels would lead the economy to environmental pollution risks and increase of CO2 emission

- ✓ On the other hand, VN has high potential for developing different types of RE which currently has not been exploited yet.



2. The Drivers of Clean/Renewable Energy Transition in Vietnam



Global context:

- COP 21 and commitments to reduce CO2 emission
- Reduction of global financing for coal-fired projects
- Costs for investing in RE dropped by 10% last two years- installed RE capacity increased sharply and steadily.
- Technology advancements – various RE technology solutions



National context

- Policies to promote non-hydro RE were introduced (strategy for RE dev, several incentives introduced to RE investment projects)
- Increased public awareness of the environmental risks from coal-fired power plants – created pressure for RE transition

2. The Drivers... (2)



- More difficult to borrow ODA & international development partners for coal-fired power investment



- Energy market reforms: Electricity price reform, competitive retail power market by 2030, FIT mechanism,
- Greater interest of RE investors and international development communities

Some evidence

- **National context:** Policies to promote non-hydro RE
 - RE development strategy to 2030 and vision to 2050 (increase installed and production capacity of RE, increase share in energy sector; technology advancements...etc.)
 - Policy mechanisms to promote non-hydro RE investment (wind, solar, bio-fuel..) in term of finance, tax, FIT, land preference

Increased public awareness of the environmental risks from coal-fired power plants – created pressure to move toward RE transition

- Development partners supports to increase awareness on RE dev.
- Campaigns by the social communities & experts (Green ID, REN 21), people living close to the coal-fired power plants (about air pollution issues);



- The voices of development partners on Vietnam's coal-fired power development plan



"Vietnam are planning to install 40GW of coal fired. That would spell disaster for our planet"

Jim Yong Kim- the president of World Bank



"Vietnam should give priority for cleaner domestic sources of energy including renewables including biomass, wind and solar; sustainable energy efficiencies; and the increased development of Vietnam's offshore natural gas"

Made in Vietnam Energy Plan



"Vietnam can achieve 100% renewable energy by 2050"

Power Sector Vision 2050



Danish Energy Agency

"Vietnamese power system could successfully integrate very significant shares of RES generation"

Renewable scenarios for Vietnam

3. The Future of RE in Vietnam:

- Now is the time for RE transition in VN since we have several conditions/opportunities:
 - Government laws and policies are in place;
 - Pressures are enhanced both externally and internally (as mentioned)
 - Costs of RE investment vs. coal-fired power become more competitive



3. The Future... (2)

*However, VN needs to overcome challenges for RE transition
(at least in a short run)*

Technical

- Project development capacity
- Data/information availability/ accessibility
- Dependence on foreign technology
- Infrastructure readiness

Non-technical

- Low electricity price
- Large investment required
- Need national planning for RE in place
- More effective policy/mechanism

- *What should be done?*
 - More strong commitments and policy will from energy policy-makers.
 - The PDP VII needed to be revised in near future to meet the RE transition tendency (higher share of RE)
 - RE transition and energy efficiency approach should be hand in hand (the later has very high potential in VN).
 - Make sure the energy sector reforms and RE policies implemented effectively in practice.

Thank you for your attention