

POWER & ENERGY SUB-WORKING GROUP POSITION PAPER

*Prepared by
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The Vietnam Business Forum - Energy Working Group commission the “The Made In Vietnam Energy Plan - MVEP, with support from Eurocham Vietnam, Amcham Vietnam, and Nordic Chamber of Commerce and Members

How to use Vietnam’s domestic energy resources to stimulate investment in energy generation and to meet Vietnam's climate change obligations

The Vietnam Business Forum presented the report in October 2016 to Government of Vietnam to outline the advantages of greater emphasis on cleaner domestic solutions for Vietnam's future energy needs and to demonstrate the advantages of prioritizing domestic vs. imported energy resources with respect to Vietnam's social, economic, energy security goals, Vietnam's global and domestic environmental commitments, and to attract private sector investment. The report also provides key policy and regulatory measures that could help move Vietnam towards these goals.

The MVEP focuses on analysis and regulatory support for the following:

1. Energy Efficiency - including the role of Government and using Demand Side Management tools to reduce waste and attract private sector investment and innovation in efficiencies.
2. Renewable Energy - prepare the policy and regulatory framework to enable the further development of successful markets and attract the needed investments in renewables for local and foreign investors, technology and service providers.
3. Vietnam's Natural Gas - accelerate and expand investment in the use of domestic natural gas as a more flexible, cheaper and cleaner fuel than imported coal. Gas remains the least polluting and most cost-effective fossil fuel and can serve as a secure bridge fuel with 60 percent less CO₂ emissions than coal.

The report concludes that Vietnam can successfully continue to make maximum use of its indigenous energy resources (hydro, coal, gas, oil, wind, solar, etc.) to reduce the risks and maximise the socio-economic benefits of future energy development building on its achievements to date.

Significant Benefits:

- A more flexible power development plan that can be adjusted to fit future demand, low or high, and removes the risk of either stranded assets or of failing to meet demand if growth exceeds estimates,
- A plan that can attract much greater new investment from multiple domestic and foreign sources, in particular mobilising private sector resources, building local manufacturing capabilities, reducing the reliance on foreign governments and for the need of Vietnam government revenues, subsidies and guarantees.
- Achieve a more efficient use of electricity that will reduce energy waste and make Vietnam more competitive, productive and attractive for FDI.
- Immediately deliver private investment in cleaner energy after a decade of slow action, thereby freeing Vietnam from its reliance on mega-power coal plants which require many

years of lead-time, unnecessary costs and put greater pressure on public sector borrowing and government borrowing capacity.

- Reduce the social and environmental costs of pollution from a new generation of coal power plants which contribute to poor air quality and high health costs. Following the International Monetary Fund (IMF) calculations, we estimate the costs of health and environmental impacts of the current power development plan with its reliance on coal could be as high as \$15 billion annually by 2030¹.
- Avoid building a new dependence on the imported fuel of coal with its consequent risks for security of supply and foreign exchange demands.
- Decrease the heavy financial, logistical and severe environmental costs of transporting coal and coal waste.

Policy and Regulatory Recommendations:

A more sustainable energy future path that attracts investment can be implemented immediately with the enacting of some key policy, regulatory and institution reforms, which have been identified for government and utilities through the advice of supporting donors and private sector experts and which have been successful in other similar countries.

This report advocates giving greater priority to the three national means to securing a low-risk and cost-effective energy future and recommends new imported coal power plants to have the lowest priority in the power development plan to 2030.

1. MVEP proposes that greater use of direct power purchase agreements (DPPA) between power producers and large power consumers should be allowed, as have shown to be extremely effective in other similar countries. Companies such as Apple, Nike, Coca Cola, Google and other multinational corporations have publicly made global commitments to work towards using energy from renewables and energy efficient projects. But policies in Vietnam today do not yet allow for DPPA. A change in this policy - allowing enterprises and consumers to have access to clean energy will attract additional investment and global brands that will help carry Vietnam up the manufacturing value chain.
2. MVEP suggests a broader look at the cost and revenues of developing offshore domestic natural gas. The development of offshore gas-to-power is less expensive than imported coal power as gas pricing in Vietnam includes significant revenues to the Government with taxes and royalties, revenues which need to be accounted for in accurate cost evaluation. Careful analysis indicates that gas development cost and revenue structure is favourable to imported fuel options. Further, the high cost of "clean coal" technology far outweighs natural gas.
3. MVEP recommends the implementation of the recommendations of GIZ (German Agency for International Co-operation) and the UNDP report on wind and solar PPAs to make bankable PPA Terms and Investable Feed In Tariffs (FIT) for Renewable Energy: at least 10.4 US cent/kWh for wind; and 15 US cent/ kWh for solar power (19 US cents/kWh on islands) for PPAs with a 20-year term.

¹ Calculated using planned coal-fired generation of 311 TWh in 2030 and IMF estimates of the health and environmental costs of coal consumption in Vietnam of \$ 2.26/GJ (equivalent to around 8.07/MWh of electricity generated). A cost of carbon of \$ 35/tCO_{2e} is applied. Source: *Getting Energy Prices Right*, 2014, IMF (<http://www.imf.org/external/np/fad/environ/data/data.xlsx>).

4. MVEP recommends a Power Price Roadmap using Market Based Pricing to 2020 with a vision to 2025, including definition of variable pricing between the three main tariff groups – residential, commercial and industrial. The provision of actual cost information can empower consumers and investors as to the most effective way to invest in higher efficiency equipment and processes. Energy efficiency investment and innovation is not occurring in high volume now because consumers believe power prices will remain subsidized by the government.
5. MVEP supports the enhancement of EVN creditworthiness. Increasingly international donors support for renewable and cleaner energy development and procedures to assist the cost of guaranteeing that EVN will pay for power supplied under a PPA for renewable and clean energy projects in Vietnam, wind, solar, biomass, waste to energy and natural gas. The credit enhancement of EVN would aid the government of Vietnam to reach energy and environment goals and help encourage developers to consider Vietnam for financial investment and bankable commercial debt.
6. MVEP encourages the Government to work with the private sector to develop the off-shore gas reserves and infrastructure, and encourage additional exploration to bring addition gas on line as soon as possible and reduce the need for imported coal.
7. MVEP encourages the Government to work with the private sector solar experts and business groups in Vietnam and publish a modified Solar Power Decision in 2016 with its supporting regulations in the form most likely to attract private capital investment.
8. MVEP recommends tax incentives and regulatory fixes to individual households and businesses to reduce energy use and to encourage installation of solar, wind or other renewable energy sources to relieve pressure on the power distribution system.
9. MVEP recommends greater inclusion of private sector investment into smart grid and smart transition technologies and effective cost saving solutions.
10. MVEP recommends mandatory energy efficiencies and construction requirements for particular products such as appliances, generators, air condition units, as well as construction standards for housing, office, factory and retail development.
11. MVEP recommends the development of small or large scale well-structured waste to energy system, especially to benefit local communities to (1) improved health and hygiene, and (2) to increase power supply, and 3) to decrease carbon emissions and health effects from open burning of agricultural waste and trash.
12. MVEP recommends a public education campaign to alert the general public to the individual ability to reduce energy waste and increased awareness of ways to protect a clean environment for the good of all people and generations to come.