

REPORT OF POWER & ENERGY SUB-WORKING GROUP

*Prepared by
Power and Energy Sub-Working Group
Vietnam Business Forum*

1. Investment, Energy Security and the 4th Industrial Revolution

The Made in Vietnam Energy Plan* laid out the roadmap of reforms that is need to be implemented to attract an estimated \$7billion of investment in energy annually from private investors.

The Plan highlights the speed, low risk and economic efficiency of fully utilizing the renewable energy resources, natural gas and energy efficient technology in Vietnam to meet the challenge of relentless growth in energy demand and how that plan would increase the probability of having energy security in southern Vietnam from 2018to 2030.

Global trends in energy markets reflect, new demands from power consumers, reducing costs for clean energy and the impact of new technology within the 4th Industrial Revolution, including:

- a. Consumers expect to have access to clean energy, The RE100 Group and Apple, Nike, IKEA leading this dynamic movement
- b. The falling Cost of Solar and Wind technology bringing it to close to parity with the cost of energy produced from natural gas and super critical coal.
- c. A new architecture for the power market with the 4th Industrial Revolution technologies. No longer is a power consumer playing a single role in the market – buying power and a power producer the complimentary role of supplier – selling power. The consumer is now also a power producer (solar rooftop) and as a power storage facility (batteries, the internet of things, electric vehicle charging/production of energy).
- d. Increasing sensitivity to air and water pollution and analysis of the social and economic costs, with China as the unfortunate example of the consequences of economic growth without sufficient environmental management

The 4th Industrial Revolution will deliver a range of new technologies and inter-connectivity for data, power and services impacting all economies and industries.

- With a more flexible power development plan, the Government will avoid building a new dependence on the imported fuel of coal with its consequent risks for security of supply and tens of billions of dollars in foreign exchange demands and balance of payment risk.
- The MVEP will achieve a more efficient use of electricity that will reduce energy waste and make Vietnam more competitive, productive and attractive for FDI.
- Furthermore, it will decrease the heavy financial, logistical and severe environmental costs of transporting coal and coal waste, which helps to ensure energy security for a sustainable growth of Vietnam.

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2. Three-keys reforms to accelerate investment in the power and energy sector

- a. **Direct Power Purchase Agreement:** MOIT approve a number of new renewable energy power projects that are permitted to execute a Direct Power Purchase Agreement with any large power buyer that wants access to clean energy and wants to avoid an energy supply that increasingly relies on fossil fuels.
- b. **Publish a Roadmap to Retail Power Price Inflation (Market Based Pricing):** MOIT publishes a Roadmap of Retail Power Pricing to 2020 with a vision to 2025, including definition of variable pricing between the three main tariff groups – residential, commercial and industrial.
 - This provision of pricing information to power consumers is the most effective way to incentivize investment in energy efficient equipment and processes. Many large power consumers believe that power prices will remain low and subsidized (e.g. many cement plants have no Waste Heat Recovery systems in Vietnam, which is a standard feature in other countries).
 - All available research in Vietnam indicates that it is not realistic to expect that power inflation will continue to be below or at the general inflation level and power inflation is inevitable and potentially steep.
- c. **Form a Partnership with the Private Sector to develop a Solar PPA and detailed regulations for export of power from rooftop Solar systems to the Power Grid:** We encourage MOIT to create a partnership with the private sector's solar experts to issue all detailed regulations and contracts in the form most likely to attract a large amount of private investment.