ISEP COUNTRY BRIEF

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IN THIS ISSUE

Vietnam is a rapidly growing and dynamic economy. It is also still heavily reliant on fossil fuels. In order for the government to meet its goals of reducing greenhouse gases by 5% by 2025 and 45% by 2050, a number of policy changes, outlined in this brief, need to take place.

ISEP hosts Vietnamese delegation at Johns Hopkins SAIS to discuss renewable energy policy options.

RENEWABLE ENERGY IN VIETNAM

BACKGROUND

Vietnam's GDP growth has been hovering around a robust 7% over the past few years now, with the national **electrification rates at nearly 99%** according to World Bank estimates. Rural electrification has also improved significantly over the past 15 years with the figures increasing to 98% from a dismal 2.5% in 1975. Results have come from investing in, constructing, renovating and upgrading the power grid, but mostly with fossil fuels as the energy sources.

ENERGY MIX AND RENEWABLE POTENTIAL

Vietnam's present energy mix comprises of coal fired power plants, large scale hydroelectric plants, gas fired plans and some renewables. Unfortunately, it is **mostly dependent on fossil fuels** and the country needs to import coal for energy generation even though the country has substantial potential for renewables. **By 2030, the country's energy demand is expected to increase by 4 times** compared to the present situation (2015) and hence renewable energy sources will play a critical role in meeting this demand. Additionally, another objective of the government is to reduce greenhouse gas emissions **by 5% (by 2025) and 45% (by 2050)** which will be only achieved by a sustained and constructive renewable energy policy.

VIETNAM'S RENEWABLE ENERGY STRATEGY (REDS)

Vietnam's Renewable Energy Development Strategy (REDS) includes ambitious and challenging deployment targets for a range of technologies. To deliver these targets and realize the economic, social and environmental benefits, Vietnam must build upon its existing regulatory framework.

WORLD BANK RENEWABLE ENERGY CAMPAIGN

The World Bank and the Electricity of Vietnam (EVN) has launched a campaign to promote the deployment of renewable energy in the country, with the installation of five solar measurement stations across the country.

These stations will collect high quality data on solar radiation data and improve the accuracy of estimates on solar resources. To be published and made freely available online, the data is expected to encourage and assist developers interested in building solar power plants. The data and maps can be accessed via the Global Solar Atlas.

Recent Projects

Solar Projects: Capacity expected to be 850MW by 2020 and 12GW by 2030

- Fujiwara Binh Dinh solar and wind power project (a 64MW solar power plant COD in Q1 2019 and a 36MW wind power plant COD in Q1 2020)
- Thanh Hoa 1 (160MW developed by BS Heidelberg Solar)

Wind Projects: 65 projects registered to generate more than 5,700MW

- Bac Lieu (99.2MW offshore, developed by Cong Ly)
- Tuy Phong (30MW, developed by REVN) in Binh Thuan

Biomass: Presently at around 150MW and expected to increase to 2GW by 2030

BARRIERS AND POLICY RECOMMENDATIONS

The government (as a part of its **Renewable Energy Development Strategy 2016-2030**) has set an electricity generation target of **7% from RE sources by 2020** and of **10% by 2030** (3.3% from solar, 2.1% from wind and 2.1% from biomass). In order to finance these energy goals, Vietnam will establish a **Sustainable Renewable Energy Fund** to be supported by state budget and environmental fees for fossil fuels to cover indicated renewable energy deployment. Additionally, net metering and preferential taxation policies will be introduced and land and environmental permitting will be outlined with clear rules and administrative procedures.

Despite the commitment of the Vietnamese Government, a number of barriers still need to be removed to achieve its renewable targets. **High government subsidies to conventional thermal energy generation** technologies create severe price distortions making coal seem less expensive than renewables. **Feed-in power tariff in Vietnam is also one of the lowest in the world** (around 9 US cents) making it less investible without a mechanism for direct corporate PPA (presently only EVN and its members are authorized as intermediary power off-takers and aggregators of renewable energy projects). **The licensing process for RE projects in Vietnam is long and complicated** and involves many government authorities and varies across the different provinces and there is a **lack of transparency** and considerable uncertainty over future levels for the retail tariff, which creates a barrier to all electricity generation project developers. Additionally, deployment of distributed renewable energy technologies will **require extension of and reinforcement of the existing electricity grid infrastructure** as well.

7 KEY SOLUTIONS

1. *Remove subsidies for conventional fossil fuel sources*
2. *Introduce net metering*
3. *Reform power purchase agreements and allow off takers other than EVN*
4. *Create simpler direct processes and transparent licensing arrangements*
5. *Publish near to medium term feed-in tariffs*
6. *Provide low cost financing to developers*
7. *Improve grid infrastructure*

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ABOUT ISEP

Hosted at the Johns Hopkins School of Advanced International Studies (SAIS), the Initiative for Sustainable Energy Policy (ISEP) uses social and behavioral science to design, test, and implement sustainable energy policies in emerging economies. ISEP identifies opportunities for policy reforms that allow emerging economies to achieve human development at minimal economic and environmental costs. The initiative pursues such opportunities both pro-actively, with continuous policy innovation and bold ideas, and by responding to policymakers' demands and needs in sustained engagement and dialogue.