



Energy

Overview of Current Policy Framework for Investment into Wind Power in Viet Nam

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Establishment of a legal framework and improvement of technical capacities for grid-connected wind power development

Focus Areas of BMU/GTZ Project:

1. Establishment of legal framework for grid-connected wind power
2. Wind Power Planning
3. Capacity Development

Overview Energy Market

2008 installed capacity 15 764 MW

- ▶ 5 486 MW (35 %) hydropower plants,
- ▶ 9 300 MW (59 %) thermal power stations (oil, gas and coal),
- ▶ 332 MW (2 %) renewable energy (8.3 MW from wind, 1 MW from solar PV, 178 MW from biomass, 145 MW from small hydropower)

The power generation of Viet nam was estimated at 77.2 MWh in 2008. Future Demand: Electricity demand has been growing rapidly and is expected to increase by around 15-18% annually between 2010 and 2030

Overview Energy Market

- ▶ Viet Nam is facing a severe shortage of about 1400 MW or almost 10 % of total installed capacity in peak times resulting in many power cut-offs.
- ▶ Average retail power price is 862 dong (3.5 € cents) per kilowatt hour. In peak hours, the retail price is 1900 VND/kWh (7.5 € cents) and price for businesses is 3100 VND/kWh (12 € cents).
- ▶ In 2008, the Vietnamese rural electrification rate was 94.5 % compared to a mere 14 % in 1993. Mainly the mountainous areas, islands and remote areas are still lacking electrification

Liberalisation of the Electricity Market

Since 1995 EVN holds a monopoly for electricity transmission and distribution; private participation via BOT.

The Electricity Law calls for unbundling and for the creation of a competitive supply market: 2009, a spot market was set up, and ERAV was established as electricity regulator.

The roadmap specifies that the power market will be transformed: competitive generation market (2009), competitive wholesale market (2017) and competitive retail power market (2024).

Actors

- ▶ **Ministry of Industry and Trade:** formulation of laws policies, development strategies, and master plans.
- ▶ **Ministry of Natural Resources and Environment:** implementation United Nations Framework Convention on Climate Change; host DNA
- ▶ **Provincial people's committees:** prepare investment plans and manage rural electrification programmes in their territories.
- ▶ **EVN:** production, transmission, distribution and sales of electricity power.
- ▶ **Independent Power Producers:** two major foreign IPPs: Phu My 3 (716 MW, Gas, 412 million US\$) and Phu My 2.2 (715 MW, Gas, 410 million US\$).

Energy

Wind Power Development

Potentials

Vietnam is rich in renewable energy sources. The potential for small hydropower systems is 800 to 1400 MW, while biomass-fuelled systems could provide an additional 250 to 400 MW. Potential of Wind Power is estimated at 500,000 MW (World Bank)

First Wind Farm 5 x 1.5 MW (Fuhrlander Turbines) has been established, another one (30 MW GE Turbines) is under preparation.

Viet Nam is lacking a legal framework for the implementation of wind energy projects. There is no support mechanism in place that gives investors the required security for their investment.

Sixth Power Development Master Plan

The **Sixth Power Development Master Plan for the period 2006-2015** includes the following target for grid-connected renewable energies:

- ▶ **3 %** of primary commercial energy in 2010
- ▶ **5 %** by 2020, and 11 % by 2050

Establishment of a framework for renewable energies:

- ▶ Renewable Energy Office
- ▶ Renewable Energy Fund

Avoided costs tariff

- ▶ Decision 18/2008 by MoIT issuing the stipulations on tariff of avoided costs and (standardised) PPA for renewable energy power plants.
- ▶ Actually, a PPA with EVN is one of the biggest obstacles for grid-connected wind power development as EVN will not buy electricity above 5.3 \$ cents/kWh . However, no projects are financially viable under 8.4 \$ cents/kWh (5.6 € cents/kWh).

Vietnam Environment Protection Fund

- ▶ **Decision 82/2002/QD-TTg:** MoNRE has set up the **Vietnam Environment Protection Fund (VEPF)**.
- ▶ Its main responsibilities are to grant loans at a favourable interest rate (3.6%) and guaranteed loans; to finance and co finance; to organize registration, monitoring and management of CERs.
- ▶ The priority is the development of clean and environmental friendly technologies and electricity efficiency.

Master plan for RE Development

The “Strategy and Master plan for Renewable Energy Development of Viet Nam for the period up to the year 2015, with outlook to 2025” completes the status of renewable energies in Vietnam, the objectives and the roadmap.

However it still needs to be approved by the Prime Minister...

Furthermore, a **Decree** on encouraging and supporting renewable development is under development of MoIT and is expected to be approved by the Prime Minister end of 2010.

World Bank is working on RE-Law



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gtz

Thank You for Your Attention!

