

Technology Fact Sheet

Wind energyⁱ

1) Technology status

The first Vietnam's wind power plant, which has a total capacity of 120 MW, is under construction in Tuy Phong (Binh Thuan province). This project is invested by Vietnam Renewable Energy JSC (REVN). Phase 1 of the project was completed with twenty 1.5 MW wind turbines installed, which are now in operation and contributing electricity to the national grids. In Phase 2, the two remaining 90 MW turbines will be installed by 2012. Additionally, about 20 wind energy projects, with capacities ranging from 6 MW to 150 MW, are undergoing feasibility study, investment preparation or implementation plan development.

2) Socio-economic benefits

- Adding a new source of power to serve the societal and economic needs, especially in areas that are far away from the grids, isolate islands; creating more jobs and enhancing quality of life.
- Reducing fossil fuel, particularly oil, consumption.
- Helping to ensure energy security.

3) Application potential

In the renewable energy strategy and master plan by 2015 and 2025, proposed by the Ministry of Industry and Trade to the GoV, strategic goals of 689 MW (basic level) and 1870 MW (advanced level) of wind power will be achieved by 2025.

4) Environmental and GHG emission reduction benefits

Approximately, each MW of wind power emits 2000 tonnes of CO₂ less than coal-fired thermal power.

Vietnam's wind energy potential is high, with a possible capacity up to 1000-2200 MW.

Producing 1280 MW of wind energy can reduce 28.4 million tonnes of CO₂ compared to producing 400 MW of coal-fired thermal power.

5) Barriers

- Requiring large spaces.
- Low capacity factor (20-30%) due to fluctuating wind resource over time (season, month or even day), leading to increased capital costs and longer payback time.
- Higher capital and production costs than other conventionally generated energies. As a result, it is harder for wind generating companies to make a contract on wind power purchase with local electricity utilities without governmental support.
- Lack of supporting policy.

ⁱ This fact sheet has been extracted from TNA Report - Mitigation for Vietnam. You can access the complete report from the TNA project website <http://tech-action.org/>