Phu Lac Wind Farm - Phase 1

Project Fact Sheet

Project Description

The Phu Lac wind project spans an area of around 400 ha. It is the fourth wind farm to be realised in Vietnam. In the first phase, the project has been designed to have 12 wind turbines of 2 MW each with an overall installed capacity of 24 MW.

The project is situated close to the transmission grid. Only about 100m of 110 kV transmission lines are built to connect the project to the national power grid. The construction of the first phase started in 2015. The wind farm is expected to be completed and put into operation by September 2016.

In operation, the wind farm will produce an estimated 59 GWh of electricity per year, enough to supply electricity to around 150,000 people (at an average energy consumption of 330 kWh per capita). The project avoids CO_2 emissions of at least 37,000 tons annually. Electricity produced by the wind farm is purchased by EVN at a price of 7.8 US Cents/kWh.

The total investment is USD 52 million. 85% come through an ODA loan from the German Government and its Development Bank (KfW).

Project Location

The Phu Lac wind farm is located in Binh Thuan Province in Vietnam.

Binh Thuan province has an advantageous 192 kilometres coast line, with abundant wind resources. The average wind speed of the province is estimated to be around 6.8 meters per second at 60 meters above ground.

Geographical coordinates:
Northern latitude:
11° 13' 27.05''

Eastern longitude:
108° 41' 51.26''

Project Key Facts

Location	Onshore: Phu Lac Commune, Tuy Phong District, Binh Thuan Province
Project Developer	Thuan Binh Wind Power Joint Stock Company (TBW)
Equity Investor	Thuan Binh Wind Power Joint Stock Company (TBW)
Debt Investor	KfW Development Bank (EUR 35 million ODA loan)
Total Investment (Debt/Equity ratio)	USD 52 million (80/20)
Engineering, Procurement, Construction (EPC)	Hydropower China (with Vestas)
Status	Under construction (commissioning: Sept 2016)

Technical Information

Manufacturer	Vestas, Denmark
Turbine type	V100 (x12) – 2.0 MW
Total capacity	24.0 MW
Power production	59 GWh p.a.
Hub height	95 m
Towers	CS Wind, Vietnam
Rotor diameter	100 m
Total height	144 m
Cut-in/cut-out wind speed	3 m/s – 20m/s

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MOIT/GIZ Energy Support Programme

Unit 042A, 4th Floor, Coco Building

14 Thuy Khue, Tay Ho District
Hanoi, Vietnam
T + 84 4 39 41 26 05

F + 84 4 39 41 26 06
office.energy@giz.de

www.giz.de/viet-nam

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