

Wind Energy in the Philippines

Potential, Opportunities and Challenges

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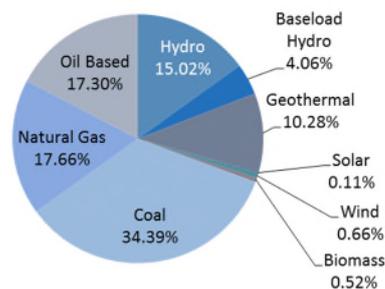
The Philippines – an up-and-coming wind market!

Energy Market Overview

The Philippines are a fast-growing economy where a significant increase in electricity demand in the coming years is being predicted. There is a pressing need to increase generation from capacities from both fossil and renewable sources.

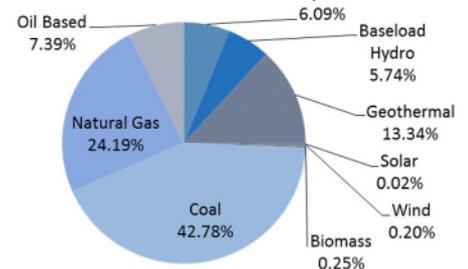
The country's energy sale is projected to increase from **55 TWh** in 2008 to **149 TWh** by 2030. The peak demand is predicted to increase from **9 GW** in 2008 to about **25 GW** by 2030. The Philippines' overall installed generation capacity was **17.9 GW** in 2014. Coal, hydropower and oil are the most important sources for electricity production. The development of new renewable energy technologies started gathering speed with the introduction of the Feed-in tariff in 2013.

2014 Dependable Capacity = 15,633 MW



Base Load
Capacity:
66.91%

2014 Gross Generation = 77,261 GWh
Self Sufficiency = 53.47 %



Base Load
Generation:
86.31%

Electricity Production and Generation Capacity 2014
Source: DOE

Facilitator

Wind Energy Potential & Opportunities

In order to secure energy supply and at the same time reduce energy related greenhouse gas emissions, the Philippine government has set itself ambitious targets for renewable energy development.

According to the National Renewable Energy Plan (NREP), the Philippines seeks to increase the RE-based power generation from its 2010 capacity of 5,438MW to 15,304 MW by the year 2030, targeting an additional RE capacity of 9,865MW. The plan foresees the development of an additional 2,345MW in capacity from wind technology, making it the largest contributor among the new renewable energy sources of solar, wind and biomass.

The Philippines has a tropical marine climate with varying wind patterns according to location and season. It has substantial wind energy potential especially on the Luzon and Palawan islands where meteorological as well as measurement data by NREL show good to excellent wind speed for utility scale applications. The technical potential for wind power development in the Philippines is estimated to be around **70GW**. Since the introduction of the Feed-in-tariff in 2013, the capacity in wind technology increased from **33MW** to **427MW** with an additional **1,168MW** of service contracts registered with DOE as of June 2015.

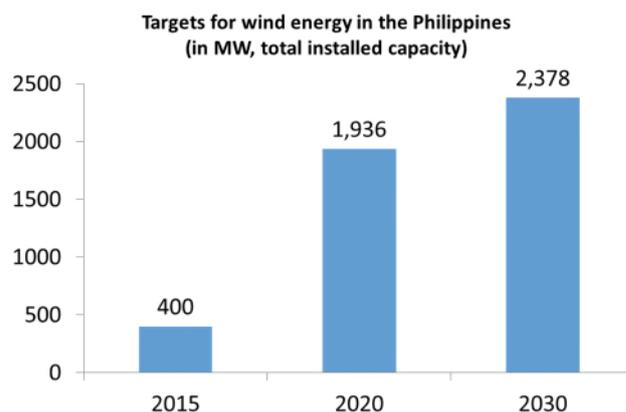
Wind Energy Challenges

A number of regulatory and market barriers limit the industry to scale up to its highest potential.

Besides the low target for feed-in tariff installations that needs to be regularly adjusted, some other challenges are the lack of data reliability, the uncertainty of the regulatory regime and the supply of auxiliary equipment, especially in the transmission sector and services.

The current remuneration scheme of wind energy in the Philippines includes a feed-in tariff at **18.2 US¢/kWh**, with the PPA duration of 20 years and an installation target of 200MW which is already over-subscribed. An additional target of 200MW has been recently approved but with a lower FIT rate based on the petitioned filed to the regulatory office by the National Renewable Energy Board (NREB).

In addition, there are fiscal incentives, such as import tax exemption, special land tax rate, corporate income tax reduction etc.



Complex procedures for investments and ownership restrictions make it difficult for foreign investors to tap into the market.

The Renewable Energy Project Development Program (PDP), implemented by GIZ GmbH, provides its services on partnership establishment, reference projects development, capacity building and support to regulatory frameworks, in order to help German companies develop long-term businesses in the Philippines; thereby support the development of the renewable energy sector.



Process for Wind Power Project Development – Source: GIZ

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