

# Renewable Energy Project



## Bhambarwadi Wind Power Project

This project involves the construction of a number of new wind turbines in Western India. The total emissions reductions are estimated to be 25,000 tCO<sub>2</sub> equivalent, verified to the Voluntary Carbon Standard (VCS).

### Technology partner

Avinash Bhosale

### Country

India

## About your project

Located in the Indian state of Maharashtra, this project involves the construction and operation of sixteen new wind turbines near the village of Gudhe Panchgani. The wind turbines generate clean, renewable electricity with a combined capacity of 12.8MW. This displaces electricity which would otherwise have been drawn primarily from fossil fuel fired power stations connected to the grid. In turn, this reduces CO<sub>2</sub> emissions along with other harmful pollutants such as sulphur dioxide, nitrogen dioxide, dust and solid waste.

India's future energy requirements are forecast to rise substantially to meet its economic and development objectives and it's predicted that the country will need to expand its electricity supply by up to seven times today's production levels. Currently almost 85% of India's energy demand is met by coal and oil, so projects like this one are important to accelerate commercialisation of grid connected renewable technologies.

Aside from generating emissions reductions, the project also provides employment and training for people from the surrounding communities. The local economy has been improved with the sale of land on which to install the wind turbines. The area is largely barren and unusable but increasing demand for wind power projects is driving up the value, bringing a new source of wealth to the region.



These images have been provided by individuals working with the project operators

## About wind power

Wind is an abundant energy resource which can be used to generate clean electricity through wind turbines. The energy in wind flowing through the turbines spins large propeller-like rotor blades. In turn, this rotates a shaft which is connected to an electrical generator which converts the kinetic energy of wind into electrical energy. The output of a wind turbine depends on the turbine's size and the wind's speed through the rotor blades. These blades range from around 30 to 90 metres in diameter and the supporting towers are roughly the same size in height. The power generated by utility-scale turbines varies from 100 kilowatts to as much as five megawatts. Larger turbines are grouped together into wind farms, providing bulk power to the electrical grid which is sent through transmission and distribution lines to homes and businesses.



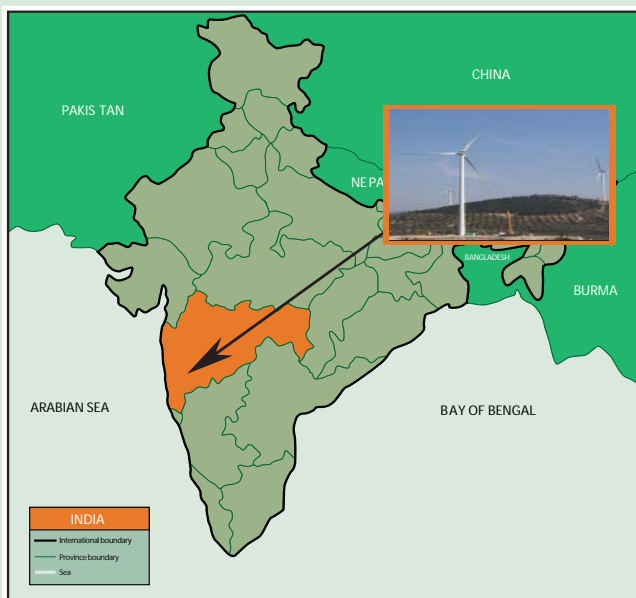
## How carbon offsetting helps the project

It is expensive to develop and operate renewable technologies and that is where carbon finance can play an important role. Wind power projects like this one are not required by law and often have to overcome financial and technological barriers to realise implementation. Carbon finance provides an additional revenue stream helping to make these projects an attractive and viable option. In this case, the incentives from carbon finance are enabling the development of a wind project to generate clean energy.

The reductions in CO<sub>2</sub> emissions achieved by this project are incremental to 'business as usual' and measured by an independent verifier to internationally recognised standards. These are bought as carbon credits by clients of The CarbonNeutral Company to neutralise their own emissions.

### Verification:

This project is being verified to the Voluntary Carbon Standard (VCS). A copy of the documents relating to this project can be found within the project registry of CarbonNeutral.com.



### Project area co-ordinates:

The geographical co-ordinates of this project are latitude 17°7' North and longitude 74° East.