

# Renewable Energy Project



## Maharashtra 7.5MW Wind Power Project

This project involves the generation of renewable energy through the installation of wind turbines in the state of Maharashtra, India.

### Standard

VCS (Voluntary Carbon Standard)

### Country

India

## About your project

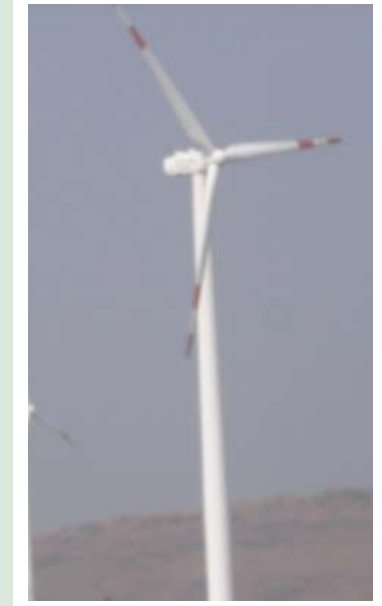
The project involves the development of six 1250kW wind turbines with a total installed capacity of 7.5 MW located in the villages of Chakla and Choupale in the state of Maharashtra, India. The project provides 13GWh of renewable electricity to the Northern, Eastern, Western, Northeastern (NEWNE) grid in India per year, reducing CO<sub>2</sub> emissions by displacing electricity from fossil fuel-based electricity generation plants (particularly coal-based generation).

In recent years, India's energy consumption has been increasing at one of the fastest rates in the world due to population growth and economic development. The Indian government is keen to decrease its reliance on fossil fuels to meet its energy demand and there is significant potential in India for generation of power from renewable energy sources. However, currently only 1.6% of actual power production in India comes from wind power. Therefore projects like this which utilise such resource are essential to providing a clean solution to India's growing energy demands.

Before project construction began, a consultation was held with local stakeholders to ensure all were in favour of its development, including members of the 'Gram Panchayat' (village-level local government in India) - all of whom were in strong favour. In addition to reducing GHG emissions, the project has generated temporary and permanent employment in the region and the India-based turbine manufacturer, Suzlon Energy, has committed to supporting the local community by providing a free medical and ambulance facility for the villagers.

## 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.



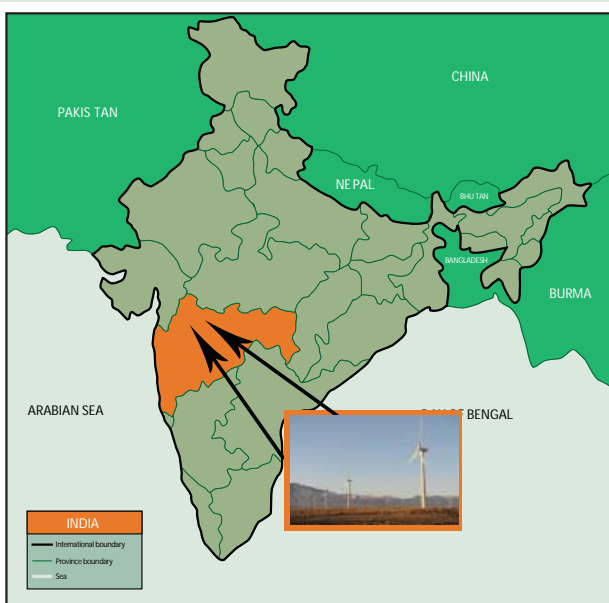
## How carbon offsetting helps the project

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 this 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 verified to the Voluntary Carbon Standard (VCS).



### Project area co-ordinates:

**Site 1** is located at latitude 21°20'7.51" North and longitude 74°18'54.04" East.

**Site 11** is located at latitude 21°20'17.82" North and longitude 74°18'59.46" East.