

# Renewable Energy Project



## Govindapuram Wind Power Project

This project enables the installation of four wind turbine generators to produce clean electricity.

### Standard

Voluntary Carbon Standard (VCS)

### Country

India

## About your project

Located in the Tirunelveli and Erode districts of the state of Tamil Nadu in India, this project has a total installed capacity of 5.8 MW. The project consists of wind turbine generators manufactured by Vestas and Suzlon, with installed capacities of 1650 kW and 1250kW, respectively. The electricity generated from the wind turbines is either sold to the state electricity grid or sent to the project partner's spinning factories in the Ponneri, Udumalpet and Coimbatore districts. This displaces energy which would otherwise have been drawn primarily from fossil fuel fired power stations, avoiding the associated CO<sub>2</sub> emissions and environmental pollutants such as sulphur dioxide, nitrous oxide, dust and solid waste problems.

India's energy consumption is predicted to rise by nearly 40 per cent over the next five years and almost double by 2020. Meeting this need with conventional energy sources such as coal, oil, natural gas and electricity will significantly impact global greenhouse gas emissions. As such, renewable energy projects like this one play a vital role in the sustainable development of India.

The local community has benefited from employment opportunities during and after the construction of this project. The development of the project has also promoted road infrastructure improvements, facilitating further economic development of 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 meters 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.



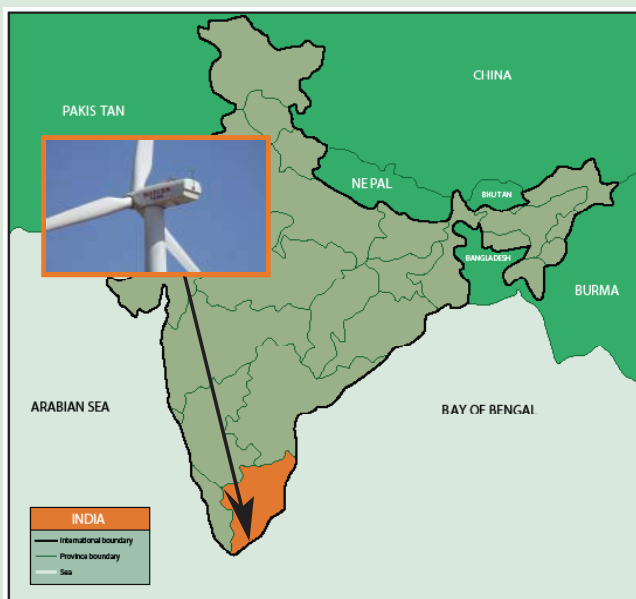
## How carbon offsetting helps the project

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 realize 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 recognized standards. These are bought as carbon credits by clients of The CarbonNeutral Company to neutralize their own emissions.

### Verification:

This project is being verified under the Voluntary Carbon Standard (VCS).



### Project area coordinates:

The project is located in the Tirunelveli and Erode districts and has geographical coordinates of 8°19'29.2"North, 77°39'17.4"East and 10°44'33"North, 77°24'26.5"East.