

# Renewable Energy Project



## Mare Mantasir Project

This project uses wind power to generate electricity at a 39.2 MW grid-connected, onshore wind farm in the Izmir province of Turkey.

## Standard

Gold Standard (GS)

## Country

Turkey

## About your project

Generating 129 GWh of renewable electricity each year, the Mare Mantasir project is one of the largest onshore wind farms in Turkey. Approximately 50 wind turbines have been installed at the project site, 70km from the centre of Izmir - Turkey's third largest city - on the Aegean coast. The project delivers clean energy to the regional grid, displacing the use of fossil fuels and reducing the production of pollutants such as sulphur dioxide, nitrogen oxides and particulates.

Turkey is coming to grips with pressing domestic energy needs and over the next decade its annual energy consumption is forecast to more than double. The country's domestic fossil fuel resources are extremely limited but its geographical location has several advantages for extensive use of wind power.

Alongside the environmental benefits, the project has created 13 permanent jobs and provided training for local employees. Additionally, the project owner has responded to requests made during the Gold Standard stakeholder consultation process to support the local communities by:

- Donating computer equipment with internet connections to the primary school in Germiyan village, creating the only internet connection for public use in the village;
- Constructing a kindergarten school in Germiyan village for local children in cooperation with the Ministry of Education. The building work was completed at the end of 2007 and the school opened its doors in February 2008.



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 verified to the Gold Standard (GS).



### Project area co-ordinates:

The geographical location of the project is latitude 38 017'58.30" North and longitude; 26 029'04.75" East.