firstclimate
Green Energy, Climate Neutral, Water

Dedicated, Naturally.

India:
34.4MW Wind Power Project

Producing clean energy in the State of Karnataka

Certification:
Gold Standard

Key Facts

TÜV NORD CERT GmbH
Verified Carbon Offsetting

Location:
Karnataka, India

Project type:
Renewable Energy – Wind

Total emission reductions:
» 66,000t CO_2e p.a. «

Project standard:
Gold Standard

Project start date:
December 2007

Background

India is already today the 7th largest economy in the world and the country is rapidly growing - both in economy and in population. This growth, however, has also brought about problems for the country. For example, since the year 2000, energy consumption has already doubled. Fossil fuels are responsible for meeting most of the demand. Coal plays a particularly significant role, accounting for around three quarters of total energy consumption.

As a result of this, India's energy system is not only very carbon intensive, but also a key source of other harmful emissions. In the last 40 years, emissions from fossil fuels have increased by around 900%. According to the WHO, 11 out of the 20 cities with the poorest air quality are found in India. The use of renewable sources helps to fight against this and India has huge potential for harnessing renewables.

The Project

The project involves the construction and operation of 43 wind turbines in the Gadag district of Karnataka in southwest India. Each turbine has a capacity of 0.8MW and the total installed capacity of the windfarm is 34.4MW. Each year, the project will produce around 70,000MWh of clean electricity. This will be delivered to the regional power grid. In this way, the project contributes to reducing the supply-demand gap in Karnataka and helps to diversify the energy mix whilst reducing carbon intensity of the supply system.

Sustainable Development

By supporting this project you'll contribute to the following Sustainable Development Goals:

firstclimate
Green Energy, Climate Neutral, Water

Dedicated, Naturally.

SUSTAINABLE DEVELOPMENT GOALS

While focusing on reducing greenhouse gas emissions, all our projects also generate multiple co-benefits. These are supportive of the United Nations Sustainable Development Goals.

Good health and well-being

According to the WHO, 11 out of the 20 cities with the worst air pollution in the world are located in India. Diversifying the energy mix will improve air quality and reduce related health risks.

Affordable and clean energy

The increased share of sustainable and zero-emission wind energy within the energy mix reduces the carbon intensity of India's power grids. By reducing the supply-demand gap, the project also reduces risk of power shortages.

Decent work and economic growth

The project provides employment opportunities for locals, which reduces localised poverty and supports sustainable economic growth.

Industry, innovation and infrastructure

The project contributes to establishing modern technologies which utilize sustainable resources and it strengthens the uptake of renewable technologies in India. Furthermore, the project improves local infrastructure, which in turn reduces transmission losses.

Climate action

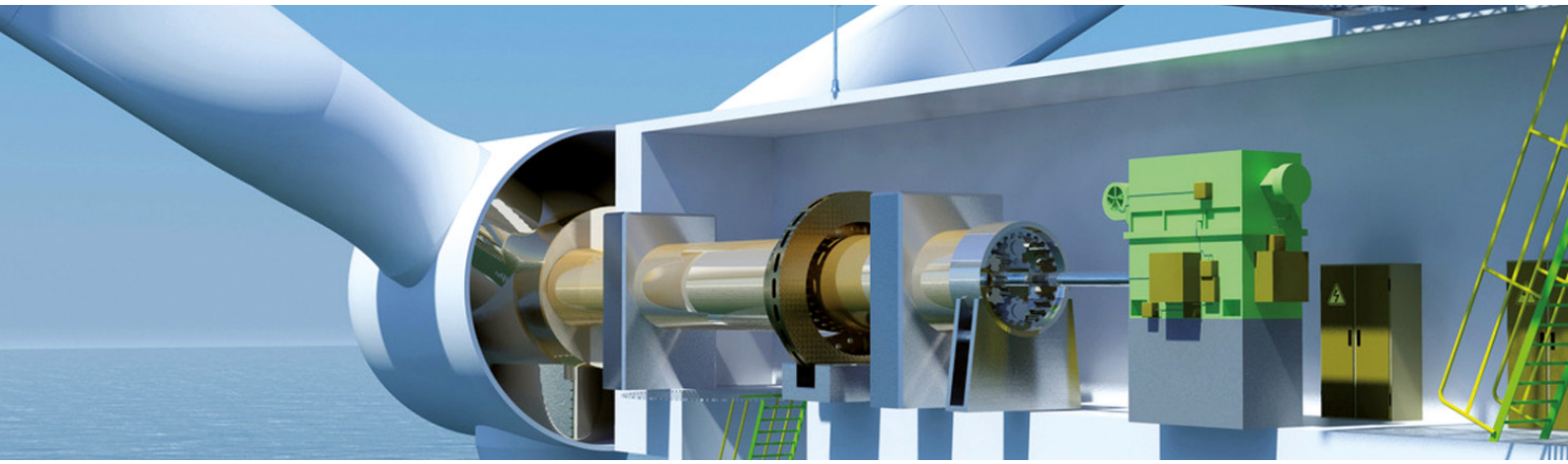
As the project utilizes renewable resources instead of fossil fuels, it contributes to a significant reduction in annual carbon emissions. This contributes towards climate protection.

Life on land

Alongside the production of carbon emissions, fossil fuels also produce air pollutants such as sulphur dioxide and nitrogen oxides, which are the root cause of acid rain. As the project avoids fossil fuel consumption, it in turns reduces the risk of acid rain, which is a widespread problem in India.

firstclimate
Green Energy, Climate Neutral, Water

Dedicated, Naturally.



Technology brief – how it works

Driven by the kinetic energy of moving air, the mechanical energy created by a rotor is fed into an attached generator to produce electricity. Output can vary depending on wind speed and this is ultimately determined by atmospheric conditions, although it is also influenced by ground characteristics. A rough surface exerts significant friction, effectively consuming energy and thereby slowing down the moving air. Smooth surfaces cause very little friction, the most obvious example being higher wind speeds in coastal areas.

It is therefore important to site wind farms carefully to maximise their potential. Over the last two decades wind power technology has rapidly improved.

Project Standard

The Gold Standard is an award winning certification standard for results based project finance and is recognised internationally as the benchmark for quality and rigour in certifying environmental and socio-economic project outputs. Established in 2003 by the World Wide Fund For Nature (WWF), the Gold Standard today is trusted and endorsed by NGOs, governments and multinationals including United Nations agencies worldwide.

First Climate Markets AG
Industriestr. 10
61118 Bad Vilbel - Frankfurt/Main
Germany
Phone: +49 6101 556 58 0
E-Mail: cn@firstclimate.com

For more information on other projects in our portfolio please visit our website:

www.firstclimate.com