

Aruba

Green Electricity Generation from Wind Energy

THE PROJECT IN A NUTSHELL

In addition to saving CO₂, the project provides further benefits: 126,000 MWh of clean and green electricity is fed into the power grid each year. This strengthens the local economy by creating long-term jobs and reducing dependence on energy imports. The wind farm generates revenue that stays in the region and provides greater independence. The project is the first of its kind on Aruba and thus performs important pioneering work. In addition, the air quality is improved because less fossil fuels are used, which benefits people and the environment.

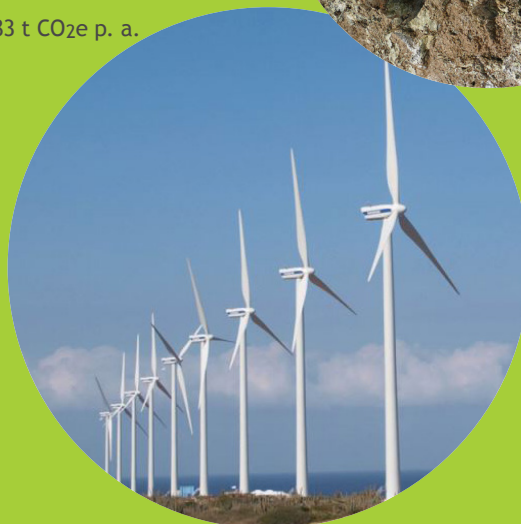
WIND ENERGY/ RENEWABLE ENERGIES

Certification Gold Standard (GS),
Voluntary Emission Reduction (VER),
Clean Development Mechanism
(CDM-/UNFCCC)-Requirements are met

Project Validation Earthhood Services

Project Location East coast of Aruba

CO₂ Savings approx. 152,783 t CO₂e p. a.



PROJECT DESCRIPTION

In the east of the island, a wind farm with 10 turbines and a capacity of 3 MW each was constructed on the very flat coast. Due to the prevailing north-westerly wind, the area is very well suited to produce electricity in a climate-friendly way. At a height of 80 meters, the rotors turn in the wind and generate 126 GWh of green electricity a year, which covers about 15% of Aruba's energy demand. Until now, the power supply has depended mainly on fossil fuels such as diesel, which have to be imported at high cost and which release a considerable amount of climate-damaging CO₂. The tankers also pose a threat to the coast. The climate protection project, in contrast, results in a lower amount of fossil fuels being imported and incinerated, which saves up to 150,000 tonnes of CO₂ each year.

GOLD STANDARD

The Gold Standard Foundation is a Swiss organization initiated by a group of 50 NGOs including the WWF (World Wide Fund for Nature), with the goal of verifying climate protection projects. Each Gold Standard project must comply with the strict requirements of the United Nations Framework Convention on Climate Change (UNFCCC) and provide additional environmental and social benefits. The Gold Standard is considered one of the highest standards in the world. Besides contributing to climate and environmental protection, the acquisition of CO₂-reductions of this quality additionally promotes sustainable development by improving the social and economic situation in the project country.

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PROJECT COUNTRY

Located in the Caribbean Sea outside Venezuela, Aruba is the smallest of the ABC islands, which additionally comprise of Bonaire and Curaçao. While the busy Palm Beach in Aruba is brimming with tourists, more secluded and quiet beaches can be found on the west coast. On the east side of the island, the waves are crashing against the cliffs and in the fascinating national park Arikok, the beautiful beaches segue into a rocky desert with giant cactuses and limestone cliffs. The national park comprises 20% of the island and is the home of the characteristic Divi Divi trees. The trees bend in the constant trade winds and represent a landmark of the island. On Aruba, many different species of lizards, as well as the poisonous Aruba rattlesnake can be found. It is also the home of wild goats and donkeys for which protected areas have been created. Parts of the ocean around the island are also under protection.



In the wind turbine kinetic energy is converted into electrical energy and fed into the grid.

POWER OF NATURE

Since wind energy occurs naturally and is abundantly available in many regions, it is one of the cleanest forms of energy. Moreover, it has a great potential: a worldwide network of wind power plants would be able to cover the current and future electricity needs of humanity. The generation of clean electricity is driven by the continuous circular motion of the rotor and a generator that converts the kinetic energy into electrical energy. As no fossil fuels or nuclear power are being used to generate electricity from wind, neither CO₂ emissions nor atomic waste is produced. Therefore, energy generated from wind is an important contribution to climate protection.

CO₂ COMPENSATION

CO₂ compensation of greenhouse gases such as methane and carbon dioxide seeks to avoid and offset climate-damaging emissions through developing and supporting international climate protection projects. These worldwide projects are financed by the Western industrial countries and signatories of the Kyoto Protocol. As a guiding principle of CO₂ compensation, it is irrelevant in which part of the world CO₂ and other greenhouse gas emissions are being avoided. Every climate action matters because climate is global and does not stop at national borders. Therefore, climate protection can be implemented where it is most feasible.

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SUSTAINABLE DEVELOPMENT GOALS

On 1 January 2016, the 17 Sustainable Development Goals (SDGs) of the United Nations officially came into force. The goals for sustainable development are political objectives where social, economic, and ecological aspects are on the agenda.

One important finding is that the eradication of poverty must be accompanied by policies supporting economic growth as well as addressing a range of social needs. This includes education, health, social protection, and employment opportunities, while tackling climate change and protecting the environment at the same time.



7 AFFORDABLE AND CLEAN ENERGY



AFFORDABLE AND CLEAN ENERGY The wind turbines feed clean energy into the local grid and displace conventional, climate-damaging energy.

8 DECENT WORK AND ECONOMIC GROWTH



DECENT WORK AND ECONOMIC GROWTH Jobs were created for the construction and maintenance of the plants, which improve the economic situation of the people.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



INDUSTRY, INNOVATION AND INFRASTRUCTURE The construction of wind turbines improves the local infrastructure, for example through the construction of roads. It also opens up a new, sustainable business field.

13 CLIMATE ACTION



CLIMATE ACTION Electricity generated from wind energy does not produce any emissions and at the same time, it replaces energy generated from fossil fuels. In this way, the projects help to reduce CO₂ emissions and thus also actively contribute to climate protection.