



WIND PARK 'VADER PIET' ARUBA

Harnessing the balmy Caribbean trade winds to help power an island



Located on Aruba's east coast in the Dutch Caribbean, this wind farm consists of 10 turbines and has a total installed capacity of 30 MW. Wind Park 'Vader Piet' supplies 126,000 MWh of electricity to the national grid each year, displacing fossil fuel-generated energy and supporting the island's transition towards renewable energy sources.

The Context

Aruba is small island in the Dutch Caribbean with an ambitious goal of 100% renewable energy by 2020. Investment in the renewable energy sector is key in supporting Aruba's planned transition away from imported fossil fuel-based electricity generation.

The Project

Vader Piet Wind Park harnesses the abundant wind resources of Aruba's east coast to supply zero emissions energy to the grid. The project installed ten Vestas V90-3.0 (60 Herz type) turbines, each with a 3 MW capacity, for a total installed capacity of 30 MW. Each turbine hub is a towering 80 metres off the ground, with a transformer installed in the nacelle and a 34 kV switchgear in the tower base. The turbines also feature a condition monitoring system. In 2015, the project owner installed an 11.2 MW capacity solar photovoltaic system to power the turbine maintenance team's office and workshops, which are located too remotely for electricity grid connection.

The Benefits

The project contributes many benefits to both Aruba and the wider world. By reducing the need for imported fossil fuel-based electricity generation, it reduces Aruba's dependence on foreign energy sources, thereby strengthening its energy security and self-sufficiency. The wind farm also increases regional employment opportunities, and further strengthens the local economy by attracting investment. Through diversifying electricity sources, the project helps meet growing energy demands whilst helping Aruba transition away from fossil fuels, and ultimately contributes to global climate change mitigation by reducing greenhouse gas emissions.

The prevailing north-easterly trade winds of Aruba's east coast position make it the ideal location for a wind park



126,100 MWh

of renewable energy supplied to the national grid on average annually



5 permanent jobs

created by the wind park for local people



Wind farm infrastructure

and technology is established on Aruba by the project, supplanting the need for fossil fuel-generated electricity



152,783 tCO₂e

mitigated on average annually by the wind farm

For more information on the UN Sustainable Development Goals, please visit: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

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