

CAPE VERDE

TECHNOLOGY	CAPACITY	LOAN SIZE	PROJECT NAME
Hybrid (wind/solar)	2 MW	\$8 million	100% Renewable Energy Island Solution (100% REI©)

PROJECT OUTLINE

This project is aiming to meet the entire demand for electricity and fresh water on the Island of Brava through renewable sources. The 100% REI© concept has been developed by the Associated Energy Developers, along with Cape Verde Wind, who will coordinate with the existing water distribution company, Agua Brava, to implement this project. These companies will be working with the support of the towns on Brava to organise a Private-Public-Partnership (PPP) to fund the 100% REI© solution.

The project will utilise a combination of wind turbines and solar PV panels to produce renewable electricity and includes a grid stabilisation mechanism. Electricity will be directly fed into the grid from the wind and solar plant and will also power a system to produce anhydrous ammonia (NH₃). This can be stored and then used to power electrical generators in remote villages or at times of low output from the wind or solar plant. The renewable electricity produced from this project will also power desalination plants that will provide approximately 500,000 liters of fresh, potable water per day for the population.



PROJECT IMPACTS

SOCIO-ECONOMIC

The combination of technologies used in this project will result in a 100% renewable solution for the Island of Brava, fulfilling a national goal. The project will provide affordable and renewable electricity to the entire island, displacing expensive diesel generation. Communities will benefit from the jobs created through this project as well as having enhanced access to fresh water. Remote villages will especially benefit from local desalination plants, which will reduce the distance needed to travel in order to collect fresh water.

RELIABILITY

The energy storage solutions presented by this project will enhance the reliability of electricity supply on Brava and therefore improve the stability of the system.

ENVIRONMENT

The 100% REI© project will result in a reduction of CO₂ emissions of approximately 4,665 tons each year as well as improving local air quality.