

Carriacou Photovoltaic powdered Salt Water Reverse Osmosis, (SWRO), Desalinization System Grenada

THE PROJECT

The project involves the construction and installation, in the rural area of the island of Carriacou, of a desalination plant reverse osmosis, (SWRO), powered by a system of photovoltaic panels for the purification, collection and distribution of about 300m³ of water per day, in order to alleviate the shortage of fresh water for the island population through renewable energies.

BACKGROUND

Until 2016, the island of Carriacou had no source of drinking water supply, both domestic and industrial. In fact, there are no lakes or streams capable of supplying a quantity of fresh water capable of satisfying the population needs. The installation of a reverse osmosis desalination system powered by solar panels makes it possible to tangibly reduce the problem of the local population, with minimal environmental impact due to the use of sustainable energy sources.

OBJECTIVE

Increased availability of fresh water and resilience to drought periods.

PLANNED ACTIVITIES

- [Tender for the construction and installation of a salt water reverse osmosis desalination plant, \(SWRO\), and a photovoltaic panel system](#) and related installation.
- Installation and management of cisterns for storing 378,541 liters of water connected to a distribution system connected to the domestic network.
- Connection of the photovoltaic system to the national electricity grid.
- Installation of an internet connection to remotely monitor the operation of the seawater reverse osmosis system

SUBJECTS

Promoters:

- Ministry of the Environment and Energy Security (MASE)
- Permanent Representation of Grenada to the United Nations

Actuators:

Carribean Community Climate Change Center, (CCCCC)

CONTRIBUTION TO

⇒ [NDC Grenada:](#)

- Promotion of fair and sustainable use of the island's water resources.
- Reduction of greenhouse gas emissions by 30% within 2025, and by 40% within 2030 according to the *Business as Usual* scenario, (BAU).

⇒ [Agenda 2030:](#) Goal 6 - Clean water and sanitation; Goal 7 – Sustainable energy. Goal 13 – Actions for the climate.

TOTAL COST OF THE INITIATIVE

\$ 1,250,000

Lender: MASE

Other lenders: ---

OUTPUT

- Reverse osmosis desalination plant, (SWRO), capable of producing approximately 300m³ of drinking water per day, connected to a photovoltaic system capable of producing 150 Kw of energy, installed.
- Water collection system capable of containing 378,541 liters of water per day, connected to the domestic water distribution system, installed.