

Grid power and electricity service on the Caribbean island of Bonaire has improved substantially as a result of the addition of a new, smart, battery-based energy storage system (BESS) to its hybrid wind-dual-fuel engine-based power grid.

How will solar power and battery energy storage help Bonaire?

The addition of solar power and additional battery energy storage capacity will complement and add to the benefits of wind power generation and energy storage on Bonaire, further improving grid efficiency and resilience, lowering costs and reducing GHG emissions further, Narminio pointed out.

Are Bonaire and Sint-Eustatius honoured?

Late last week, the good news was received that the project proposals of Bonaire, Sint-Eustatius and Saba were honoured. They are the only islands in the Caribbean whose proposals made it through the selection.

How much does energy cost in Bonaire?

This profile provides a snapshot of the energy landscape of Bonaire, a special municipality of the Kingdom of the Netherlands located of the coast of Venezuela. Bonaire's utility rates are approximately \$0.35 per kilowatt-hour(kWh), above the Caribbean regional average of \$0.33/kWh.

Does Bonaire have a utility company?

The utility company for Bonaire is Water-En Energiebedrijf Bonaire N.V.(WEB), which supplies both water and electric-ity to the island. WEB is a government-owned entity and is strictly a distribution utility, owning no generation of its own.

Does Bonaire have a regulated electricity sector?

In recent years, the Ministry of Eco-nomic Affairs in the Netherlands has been active in reforming the regulation of the electricity sector in Bonaire, both in terms of utility regulation and expanding generator access.13

## BONAIRE SINT EUSTATIUS AND SABA BEST ENERGY STORAGE SYSTEM





Bonaire, Sint-Eustatius and Saba are in the selected group of 30 islands that have been chosen by the European Union (EU) to take part in the "30 for 2030" project for energy transition. The islands, which were selected ???



developing areas. Energy self-sufficiency has been defined as total primary energy production divided by total primary energy supply. Energy trade includes all commodities in Chapter 27 of the Harmonised System (HS). Capacity utilisation is calculated as annual generation divided by year-end capacity x 8,760h/year. Avoided



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The energy storage system will enable Bonaire, part of the Netherlands Antilles, to increase its use of renewable energy such as wind and solar. In order to integrate more renewable energy and its intermittent nature, the Wartsila energy storage solution will provide the grid stability and reliability required for the island.



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The government makes 33.6 million euros available for an accelerated switch to sustainable electricity in Bonaire, St. Eustatius and Saba. This means within 3 years, an average of about 80 percent of the electricity on the three islands will ???



The last component of the upgraded generation system is a 3-MW energy storage system, built by Saft using their nick-el-cadmium battery technology.16 The battery is anticipated to smooth power fluctuations from the wind energy system and provide a buffer to allow the diesel generators to ramp up as wind output declines.

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