

ContainerPower Energy Solutions

Cape Verde peak-valley energy storage power generation



Overview

In the energy transition context, islands are identified as particularly challenging regions due to their isolation, and energy dependence; while their excellent renewable resource and rapid growth makes the.

How can Cape Verde meet its goal of 50% renewables?

Cape Verde can meet its goal of 50% renewables today by integrating energy storage. A 100% Renewable System is achieved from 2026, with a 20 year cost from 68 to 107 M€. Current paradigm doubles emissions in 20 years and costs ranges from 71 to 107 M€. The optimal configuration achieves 90% renewable shares with a cost from 50 to 75 M€.

Does Cape Verde have a wave energy potential?

In the case of Cape Verde, there is one study evaluating the wave energy potential which highlights the resource available, particularly for the northern islands, such as São Vicente . Unfortunately, the study identifies the wave resource to match that of the wind.

Is Cape Verde a developing state?

The archipelago of Cape Verde is a developing state in West Africa with extreme external energy dependency on refined oil imports despite their available solar and wind resources. Aligned with the global energy transition, the local government established goals in 2011 aiming at 50 and 100% RES.

Why is Cape Verde's energy grid falling out of scope?

Nevertheless, we discarded this due to the fact that the grid in Cape Verde is currently in expansion and this process is expected to continue during the foreseeable future following criterias related to energy access and political will, rather than techno-economical feasibility. Thus, falling out of scope.

Does Cabo Verde have electricity?

Access to electricity in Cabo Verde reached 93% in 2018 from 87.1% in 2012 though in rural areas access remains below the national average (83.1%).

Renewable energy accounts for 20.3% of total supply and an electricity sector Master Plan (2018-2040) was designed to help achieve 50% of renewable energy generation by 2030.

Where is Cape Verde located?

The archipelago of Cape Verde Located in the Atlantic Ocean at approximately 600 km from the westernmost point of continental Africa, Cape Verde is compounded by ten islands; nine of them inhabited by roughly 540,000 people. Their climate is usually regarded as semi-desert, more moderate than that of sub-Saharan Africa due to the oceanic influence.

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