

PDEOZE PowerContainer

Tonga Energy Storage Power Station Solar Power Generation



Overview

A solar-plus-storage project combining 300kW of PV and a 2MWh battery energy storage system (BESS) has been installed in the Polynesian archipelago nation of Tonga. How many people have access to electricity in Tonga?

This means that little more than 30,000 people are spread across 35 islands, presenting acute issues in terms of the provision of modern infrastructure. At OIREP commencement, the ADB estimated that 89% of all households across Tonga had access to electricity.

Can Australia help secure Tonga's outer island energy needs?

Australia also has a long history of engagement in relation to helping secure Tonga's outer island energy needs. In the early 2000s, Australia funded the Ha'apai Outer Islands Electrification project (HOIEP), which involved the installation of diesel-powered generators and electrical reticulation on four islands in the Ha'apai group.

Why is electricity so expensive in Tonga?

This has contributed to the Tongan economy and electricity consumers being exposed to high and volatile electricity prices due to fluctuations in the price of oil internationally. According to UK-based aggregate website Cable, Tonga's electricity is the 13th most expensive in the world, at an average cost of USD 0.35 per kilowatt hour (kWh).

Is TPL the most profitable SOE in Tonga?

As Tonga's most profitable SOE, there is good reason to believe that TPL has the commercial capacity, technical capacity and financial incentive to sustain, maintain and further develop OIREP assets beyond the life of the project given the revenue they can generate.

How can oirep help Tonga's remote island communities?

However, significant needs and opportunities exist to further expand renewable energy systems on outer islands. Less tangible, but also important is the role played by OIREP in consolidating Tonga's social contract with remote island dwelling communities, by allowing for enhanced and more reliable access to electricity.

How did the oirep project impact Tonga?

The project achieved its proposed impact, in terms of helping Tonga reduce its dependence on imported fossil fuel for power generation with OIREP assets estimated to have reduced diesel usage by 0.5 million litres annually. Central to the project outcome was the provision of on-grid and off-grid generation solar power at reduced cost.

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