SolarInnovate Energy Solutions

New Zealand Valley Power Energy Storage Product Introduction

Overview

Why are battery energy storage systems important in New Zealand?

There is growth in renewable energy generation as New Zealand moves to a low carbon economy. But renewable energy like solar and wind are intermittent which means Battery Energy Storage Systems, which can be flicked on to supply power quickly, are important to manage winter peaks, and to make the national power grid resilient.

What is the NZ battery project?

The NZ Battery Project was set up in 2020 to explore possible renewable energy storage solutions for when our hydro lakes run low for long periods. A pumped hydro scheme at Lake Onslow was one of the options being explored. The Government stopped the Lake Onslow investigations in late 2023.

What type of energy is used in New Zealand?

s renewable electricity systemElectricity makes up around one quarter of ll energy used in New Zealand. It is mostly generated from renewable hydro (58%), geothermal (11%) and wind (8%) sources, located far from major demand centres. Total installed generation is approximately 9500MW and produces approximately 42,000GWhr (1.

Can battery technology save energy in New Zealand?

transferring and using energy. In New Zealand, our hydro lakes store energy on a large scale. However, until now we have had limited options to store electricity cost-effecti ely close to where it is used.Around the world, battery technology now offers opportunities to store electricity economica.

What is the power system in New Zealand?

systemThe New Zealand power system is relatively sma l. It encompasses two islands, connected by an HVDC link. Today, the North Island power system serves an island maximum load of ,500 MW, and the South Island a maximum

load of 2,200 MW. Most of the time, excess electricity from South Island hydro generation is exported.

How will a new battery storage system work?

A new battery storage system will complement our existing renewable energy generation capabilities. We'll charge up the batteries with power primarily from the National Grid when there’s plenty of power around, and then use it when there's high demand. At times it will be charged from our Whakamaru hydro power station next door.

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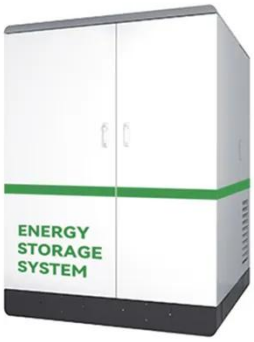

How is Valley Power's energy storage technology? , NenPower

Jul 28, 2024 · Valley Power's energy storage technology significantly influences energy costs by optimizing the utilization of stored energy during peak demand periods. By discharging stored ...

Flexible futures: The potential for electrical energy demand ...

Dec 1, 2024 · To match demand with intermittent supply, consideration of the total energy available for load shifting is also important. Thus, research should also include valley filling and ...

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