

# **Expected ROI of large scale battery storage project in New Zealand 2030**





## Overview

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Which large-scale battery energy storage systems are coming to New Zealand?

As a result, worldwide as well as in New Zealand, more and more large-scale Battery Energy Storage Systems (BESS) are announcing their arrivals. Let's take a look at a few examples: 1. WEL Networks + Infratec: 35 MW BESS.

Which energy company is building New Zealand's first grid-connected battery energy storage system?

Meridian Energy is building New Zealand's first large-scale grid-connected battery energy storage system (BESS) at Ruakākā on North Island. In January 2023, Saft, a subsidiary of TotalEnergies, has been awarded a major contract by Meridian Energy to construct New Zealand's first large-scale grid-connected BESS.

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-effectively close to where it is used. Around the world, battery technology now offers opportunities to store electricity economically.

Why should New Zealand invest in grid-scale batteries?

Additionally, these batteries, alongside more renewable generation, will help off-set the retirement of thermal generation and support New Zealand's transition to a low-emissions economy. The first grid-scale battery was commissioned in 2023 by Hamilton lines company WEL Networks.

Will Marsden Point be New Zealand's largest grid-scale battery farm?

It is somewhat poetic that the land in question is situated near the Marsden Point oil refinery. The renewable energy park is expected to go online by mid-2023, and will likely be New Zealand's largest-ever grid-scale battery



farm.

Could a grid scale battery investment be undermined by Energy Arbitrage revenue?

ased penetration of batteries. Investments in grid scale batteries relying on energy arbitrage revenue could well be undermined by the organic increasing penetration of behind the meter Battery Storage System (BSS) and Electric Vehicle (EV) to home/business/Grid - together referr



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### [New Zealand's First Utility Scale Battery Energy ...](#)

"This first network-scale battery system will contribute to the country's Net Zero ambition by 2030, allowing for more renewable energy to be installed and connected to the network and providing essential services to enhance grid ...

### **BATTERY STORAGE IN NEW ZEALAND**

We considered hosting our own trial of grid-connected battery storage, but first we chose to investigate the benefits of battery storage across the electricity supply chain. We did this by ...



### [A regulatory roadmap for battery energy storage systems](#)

Battery energy storage systems (BESSs) are the most common new form of ESSs in New Zealand. The Authority is expecting a significant increase in the amount of BESSs connecting ...

### **Unlocking the potential for batteries to contribute to ...**

This article explains the importance of grid-scale batteries as New Zealand shifts towards a highly renewable electricity system. What is grid



battery storage and why is it important?



### Battery Storage: Australia's current climate

As the world shifts to renewable energy, the importance of battery storage becomes more and more evident with intermittent sources of generation wind and solar playing an increasing role during the transition.



### Utility-scale battery storage opens up for investors

Across the globe, the overall market for battery energy storage systems (BESS) could reach between \$120 billion and \$150 billion by 2030, more than double its size today, according to ...



### **Microsoft Word**

PREFACE BATTERY 2030+ is a large-scale cross-sectoral European research initiative bringing together the most important stakeholders in the field of battery R& D. The initiative is working ...





### [New Zealand welcomes first big battery to national grid](#)

New Zealand's transition to a renewable energy future has taken a significant step forward with the nation's first grid-scale battery energy storage project now offering injectable reserves to the electricity market for the first time.



### **Chart: US is set to shatter grid battery records this year**

The U.S. is set to plug over 18 gigawatts of new utility-scale energy storage capacity into the grid in 2025, up from 2024 's record-setting total of almost 11 GW, per Energy Information Administration data analyzed by ...

### **Executive summary - Batteries and Secure Energy Transitions - ...**

Battery storage in the power sector was the fastest growing energy technology in 2023 that was commercially available, with deployment more than doubling year-on-year. Strong growth ...



### **Meridian Energy Completes New Zealand's First Large-Scale Grid Battery**

Meridian Energy has completed construction of New Zealand's first large-scale grid-connected battery energy storage system (BESS) at Ruakōkō, with an official opening ...



### Projects

The large-scale BATTERY 2030+ research initiative aims to invent the batteries of the future by providing breakthrough technologies to the European battery industry. This shall be done throughout the value chain and enable long-term ...

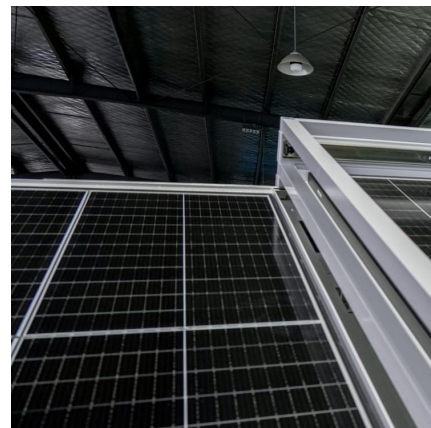


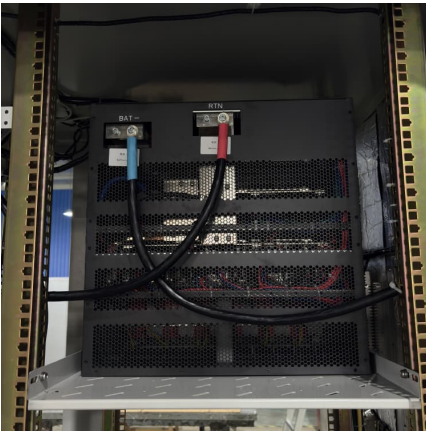
### Australia: The 2025 NEM Battery Energy Storage Pipeline Report

Australia has a massive pipeline of grid-scale battery energy storage projects. 16.5 GW of new battery projects could arrive in the NEM in the next 3 years.

### NZ Battery Project

The renewable energy park is expected to go online by mid-2023, and will likely be New Zealand's largest-ever grid-scale battery farm. It will help improve the stability of the national grid, reduce the chance of network ...





### New Zealand's 'first grid-scale battery storage project' ...

Infratec general manager Nick Bibby said that the storage system is "the first of its scale to be built in New Zealand". As reported by Energy-Storage.news, the two companies completed their assessment of the project in ...

### CAISO: The state of grid-scale battery energy storage ...

Which major battery projects are currently in testing and expected to reach commercial operation in 2025. How CAISO's Resource Adequacy market is shaping battery investment and financing decisions. To get full access to Modo ...



### [Residential battery storage skyrockets in record](#) ...

The US battery storage market set another record in 2024, according to a new report from the American Clean Power Association and Wood Mac.



### [Figure 1. Recent & projected costs of key grid](#)

Meanwhile, the costs of pumped hydro storage are expected to remain relatively stable in the coming years, maintaining its position as the cheapest form - in terms of \$/kWh - ...



### [U.S. Battery Storage Hits a New Record Growth in 2024](#)

The U.S. battery storage market achieved unprecedented growth in 2024, fueled by the need for renewable energy integration and improved grid stability. The year surpassed previous records, highlighting the sector's ...



### [Australia Battery Market Size, Share, Growth Report](#)

In December 2023, the WA government unveiled plans for large-scale battery storage projects to aid renewable energy adoption, with a target of 2 GW of storage capacity by 2030.



### [Battery Report 2024: BESS surging in the "Decade of ..."](#)

Data centre power consumption is expected to triple by 2030 as a proportion of total US power demand - and could be even greater, as shown in the graph below (taken from page 160 of the Battery Report): Two interesting ...





### Saft energy storage system to support New Zealand's transition ...

Saft lithium-ion technology will provide 100 MW power and 200 MWh storage capacity to support grid stability as intermittent wind and solar power increases in New Zealand



### BATTERY 2030+ Roadmap

PREFACE BATTERY 2030+ is a large-scale cross-sectoral European research initiative bringing together the most important stakeholders in the field of battery R& D. The initiative fosters ...

### [New Zealand's First Utility Scale Battery Energy](#)

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New Zealand's First Utility Scale Battery Energy Storage System (BESS) Gains Traction WEL Networks and Infratec are pleased to announce that they have entered into major contracts for the supply and build of New Zealand's largest ...



### The Roadmap

The current version of the roadmap integrates recent global battery research developments, takeaways from a Europe-wide consultation process and previous progress. The Battery 2030+ roadmap covers different research areas like ...





As New Zealand strides toward a sustainable energy future, electrochemical energy storage has emerged as a cornerstone of its energy transition. Here's a comprehensive analysis of the market

### **BATTERY STORAGE IN NEW ZEALAND**

After 2020, costs are forecast to decline further to the point where battery storage is expected to have positive returns at distribution, commercial and residential levels if all services can be ...



### [International Energy Storage Trends & Key Issues](#)

Excluding pumped hydro, batteries and thermal storage make up more than three-fourths of storage deployments. In 2019, lithium-ion batteries are expected to account for 65 percent of ...

### **Cost Projections for Utility-Scale Battery Storage: 2021 ...**

Executive Summary In this work we describe the development of cost and performance projections for utility-scale lithium-ion battery systems, with a focus on 4-hour duration ...





### **New battery storage capacity to surpass 400 GWh per year by 2030**

The era of battery energy storage applications may just be beginning, but annual capacity additions will snowball in the coming years as storage becomes crucial to the world's ...

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