New zealand battery storage

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The following documents were produced as part of the NZ Battery Project investigations between 2020 and 2023. A second bundle of documents is currently being prepared for publishing on this webpage. Please subscribe to the NZ Battery Project e-news if you would like to receive an email notification when these documents are available. This will be the final NZ Battery Project e-newsletter.

As noted in this report"s disclaimer on page 2, the work to complete this report was limited in scope and time. A more detailed report may reveal material issues that this report has not identified.

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.

New Zealand"s first utility-scale battery energy storage system has commenced operation with electricity distribution company WEL Networks confirming that its 35 MW/35 MWh Rotohiko battery facility has completed testing and commissioning.

Wel said the grid-connected facility, which includes 16 battery modules, eight inverters and four transformers, will deliver strengthened reliability of electricity supply for Waikato customers and will benefit the national grid through its ability to help correct supply and demand imbalances.

WEL said the Rotohiko battery, which will store enough energy to meet the daily demands of more than 2,000 homes, will participate in the electricity market providing instantaneous reserves and undertaking energy trading.

"The 35MWh BESS is the first battery of its scale in New Zealand and something we"re very proud of," WEL said. "It will deliver huge benefits by improving the resilience of the electricity system, while also increasing the value of intermittent renewable generation in the region."

Transpower New Zealand, the state-owned operator of the national grid, said the battery will play a pivotal role in the reduction of emissions in the Waikato and will move the nation closer to its goal of becoming 100% renewable by 2030.

"We see the Rotohiko battery as a milestone achievement by WEL, and we look forward to working with industry over the years to come to connect more batteries and other flexible resources to the power system to realize New Zealand"s renewable future," Transpower said.

While the Rotohiko battery is the largest of its kind currently operating in New Zealand, it will soon be

overshadowed by the 100 MW / 200 MWh Ruak?k? BESS being constructed by Meridian Energy about 150 km north of Auckland.

Renewables developer Meridian has already commenced construction of the battery with project completion expected in the second half of 2024. The BESS project is stage one of a two-stage project that anticipates the future construction of a 130 MW solar farm.