1st July 2024

Grid-scale battery investment to enhance Contact's renewable energy flexibility

Contact has confirmed it will build a 100MW (200MWh duration) grid-scale battery at Glenbrook. This is an exciting step forward for Contact as it delivers on its commitments under the Contact26 strategy. The battery will be located at Glenbrook, adjacent to NZ steel and Transpower's grid connection point and located closer to Auckland load than any other grid-scale battery project[1].

After a competitive tender process, Tesla has been selected to supply its Megapack 2 XL battery energy storage system and to provide commissioning and long-term maintenance services. The agreement with Tesla includes an option to expand the capacity for the battery to 130MW (260MWh) at this site. Contact will manage the project overall and will start construction at the Glenbrook site immediately.

Contact continues to advance further battery investment options and has been granted consent to build another 100MW grid-scale battery in Stratford, Taranaki.

The Glenbrook battery is expected to cost up to $163m[2] and be online in Q1 2026. Once operational, it will provide Contact and the market with an important source of renewable electricity flexibility, operating across physical, reserve and frequency-keeping markets. With the New Zealand Aluminium Smelter now confirmed to stay for the long-term, providing improved market certainty, Contact is advancing its plans for investment in new intermittent renewable generation across New Zealand. The battery will support new wind and solar on an intra-day and intra-week basis and ultimately reduce reliance on gas peakers as Contact transitions to a low-carbon future

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[1] Located on land secured under a 30-year lease agreement with NZ Steel.
[2] Includes sunk costs of $5.4m.

Grid-scale battery investment at Glenbrook

Contact Energy | July 2024

Grid-scale battery investment to enhance Contact's renewable energy flexibility

Contact has confirmed it will build its first 100MW grid-scale battery at Glenbrook

- The battery will provide Contact, and the New Zealand electricity market, with an important addition to renewable energy flexibility.
- The site, three hectares leased from NZSteel, is adjacent to Transpower's GXP at Glenbrook.
- It will be located closer to Auckland load than any other grid-scale battery project.
- Following a competitive tender process, Tesla's Megapack technology has been selected – a first for New Zealand at grid-scale.
- Consent has been granted by Auckland Council to operate for 35 years.

Image depicts battery megapacks, transformers, switchrooms, auxiliary facilities and access road at Glenbrook the site.

Increase in intermittent generation and market volatility sees a value shift to flexibility

Electricity supply composition is changing

The New Zealand electricity market will increasingly be dominated by weather-dependent generation that is variable on a short-term, daily basis i.e. solar and wind generation.

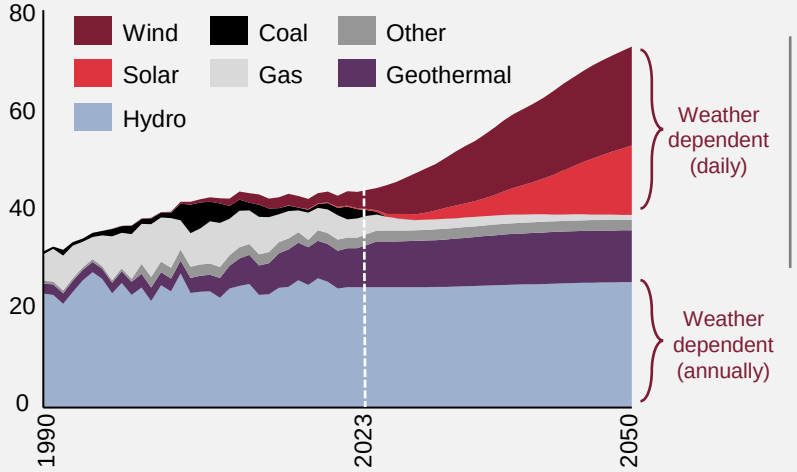
Future price volatility to be driven by increased reliance on intermittent generation

While recent price volatility has been the result of gas market constraints, future volatility will also be driven by increased reliance on solar and wind generation. This trend is emerging now.

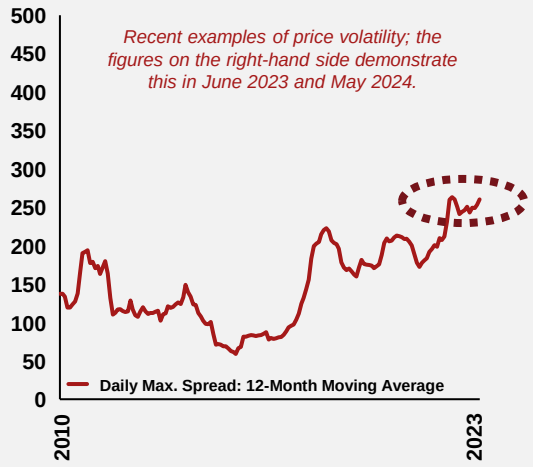
Value shift to flexibility

Value will shift from intermittent renewable generation to the owners of flexible, renewable storage.

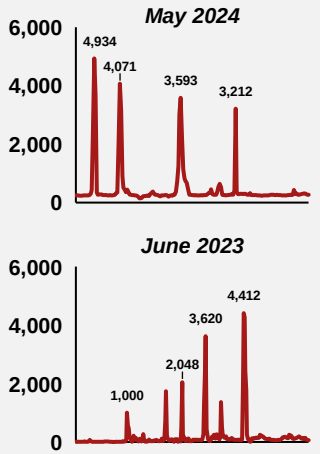
Forecast generation mix (TWh)
Climate Change Commission[1]



Spread at Otahuhu ($/MWh)
Trends in the volatility of wholesale prices



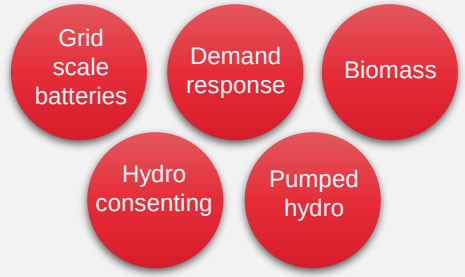
Price at Otahuhu ($/MWh)
Wholesale prices per trading period



"Flexibility in supply and demand becomes the 'secret sauce' ……as the system shifts towards renewable supply."

EA's Market Development Advisory Group

Sources of new renewable flexibility



[1] Climate Change Commission Demonstration Path (April 2023). Aligns with New Zealand's emissions targets.

Battery investment metrics are compelling, supported by a range of strategic benefits

Battery investment key metrics

Battery capacity	100MW
Storage duration / discharge	2 hr / ~200MWh
Modular format	56 megapacks
Target schedule	Online by Q1 CY2026

Initial EBITDAF	~$15-20m p.a. (average)
Operating costs	~$5m p.a.
Total project cost	Up to $163m[1]
Target IRR	9% to 10%

[1] Includes sunk cost of $5.4m.

Sources of value

- ✓ Participation across physical, reserve and frequency-keeping markets
- ✓ Supports retail shape and can support price cap and virtual battery products for tier 2 retailers
- ✓ Expansion option with Tesla to increase capacity to 130 MW / 260 MWh
- ✓ North Island location, close to retail load, reducing North/South Island price separation
- ✓ Reduces reliance on gas peakers by offering intra-day peaking
- ✓ Supports new wind and solar on an intra-day and intra-week basis

Project delivery approach

	EARTHWORKS + FOUNDATIONS	BATTERY	ELECTRICAL CONNECTIONS	BALANCE OF PLANT	COMMISSIONING	LONG TERM MAINTENANCE
SUPPLIER / CONTRACTOR	Contractor selected	TESLA	To be confirmed *RFP completed*	Various	TESLA	TESLA
COST STRUCTURE	Variable NZD	Fixed Price NZD	Fixed / Variable Price NZD	Fixed Price NZD	Included in Purchase Price	Fixed annual fee (+ escalations) NZD
PROJECT MANAGEMENT (contact)	✓		✓	✓		
SCHEDULE	Q3 CY 2024 Start	Q1 / Q2 CY 2025 Delivery	⟵	⟵	Q1 CY 2026 Completion	Term of 20 years

End-to-end, overall project management to be provided by Contact