COMMERCE ACT 1986: BUSINESS ACQUISITION SECTION 66: NOTICE SEEKING CLEARANCE

Date: **27 September 2024**

The Registrar
Competition Branch
Commerce Commission
PO Box 2351
Wellington

Pursuant to section 66(1) of the Commerce Act 1986 notice is hereby given seeking clearance of a proposed business acquisition.

Part A: Summary of Application

1. **Executive Summary**

The transaction and rationale

1.1 This clearance application concerns the proposed acquisition by Contact Energy Limited (**Contact** or **the Applicant**) of all of the shares in Manawa Energy Limited (**Manawa** or **the Target**) (the **Transaction**) by way of a scheme of arrangement. Manawa shareholders will receive consideration comprising cash and scrip for each Manawa share held by them, as follows:

- $1.16 cash for each Manawa share; plus
- 0.5719 Contact shares for each Manawa share,

less the amount of any dividend per share paid by Manawa prior to implementation.

1.2 It is estimated the shareholders of the Target will obtain an aggregate 18.5% shareholding in the Applicant.

1.3 The Applicant and the Target (the **Parties** and each a **Party**) are both engaged in the generation and wholesale supply of electricity in New Zealand. Manawa generates approximately 4.3% of New Zealand's wholesale electricity. It does not exercise a material competitive constraint over Contact now, and is unlikely to in the future if the Transaction does not proceed.

1.4 Contact's rationale for the Transaction is the portfolio benefits that will result from combining the Parties' complementary generation assets. Manawa has a diverse portfolio of hydro assets that benefit from inflows that are winter weighted. In comparison, inflows into Contact's South Island hydro catchment are summer weighted.

1.5 Manawa's assets therefore provide a natural hedge to complement Contact's existing assets. This means post-Transaction Contact will have greater certainty about generation over winter, providing three core benefits:

- allowing the combined entity to sell a larger volume of long term (i.e., with a minimum duration of 1 year) hedge and physical supply contracts at a fixed price (**Fixed Price Contracts**) compared to the scenario absent the Transaction;
- supporting Contact's and the wider industry's decarbonisation goals; and
- unlocking potential in the combined entity's development portfolio.

1.6 Furthermore, ownership of Manawa's assets will also enable Contact to operate the collective portfolio of hydro assets more efficiently. Combined ownership would enable better management of short-term (daily / weekly) intermittent generation. It would also enable synergies between hydro storage that will reduce spill during large inflow events, as well as maintaining flexibility during dry periods.

1.7 The Transaction is the most effective way to realise these core benefits. Achieving these benefits through contracting would be impractical and would not be enduring over the long term.

Increase in Fixed Price Contracts

1.8 Contact currently relies on natural gas and diesel to fill the electricity supply gap (known as 'firming') when low-cost variable renewable generation cannot meet demand, particularly during winter. The volume of Fixed Price Contracts Contact can offer is constrained by the risk of running out of fuel in winter. Diminishing natural gas availability has increased that risk, requiring Contact to reduce the amount of electricity it can sell through long term contracts. Put simply, Contact can

only sell to customers on a fixed price basis when there is certainty about the underlying fuel supply.

1.9 Winter 2024 was one of the driest sequences on record for New Zealand hydro lakes, and coincided with unseasonably low wind and a rapid and unexpected decline in the availability of natural gas. As a result, unhedged purchasers (those without Fixed Price Contracts) have faced very high costs on the spot market. Following the Transaction, the amount of electricity being generated will remain the same. However, the complementary nature of the two portfolios will increase the amount of electricity that the combined entity can be confident selling long-term, particularly in winter. This will assist market participants to better manage risks arising from the kinds of fuel supply issues that have arisen during winter 2024.

1.10 The attached report from Frontier Economics (**Appendix 1**) demonstrates that combining the Parties' hydro portfolios enables the merged entity to supply an average of 200-300 GWh of additional Fixed Price Contracts annually compared to the Parties' individual hydro portfolios. Contact is incentivised to increase the volume of Fixed Price Contracts it offers in order to reduce the risks associated with being exposed to the spot market. This is consistent with Contact's risk management policies, and its previous conduct.

1.11 This will have a material impact on the supply of Fixed Price Contracts, providing certainty of supply equivalent to the demand of 30,000 - 40,000 homes. This is roughly equivalent to Flick Electric's (one of the fastest growing new electricity retail entrants) total number of customers, or the size of a town like Palmerston North.

1.12 The increased volume of Fixed Price Contracts from Contact would provide more opportunities for independent retailers and commercial and industrial (**C&I**) customers to better hedge themselves against the sort of market volatility seen this year, and which could occur more frequently during the energy transition. Indeed, this point was addressed in the Energy Competition Task Force Terms of Reference, where it was noted that "the transition to renewable generation will make it more difficult to supply hedge contracts; at the same time the associated increase in wholesale cost volatility will increase demand for risk management".

Portfolio benefits also support Contact's and the wider industry's decarbonisation

1.13 Contact has in recent years embarked on a period of significant new renewable build, alongside a strategy to decarbonise its electricity supply as its gas plants reach the end of their lives. This is an important part of the decarbonisation of the New Zealand economy, but creates portfolio challenges that the Transaction can help address by adding more winter weighted generation to Contact's portfolio.

1.14 Contact also expects that this will accelerate the decarbonisation of the sector as a whole. The improved efficiencies of operating these assets within the same portfolio will mean Contact can use its expensive, and carbon-intensive thermal generation more efficiently for the purposes of back-up supply for both Contact's portfolio and the market overall.

Unlocking potential generation development

1.15 The Transaction improves the ability for both Contact and the wider market to make new generation investments. The additional Fixed Price Contracts that result from this Transaction will provide additional volumes that may be used to complement intermittent renewables.

1.16 The Transaction structure also means Contact retains capital options for use in future development projects. Combined with increased cash-flow certainty, Contact expects that the Transaction will allow it to accelerate investment in renewable development, delivering more electricity supply sooner than would happen absent the Transaction and enabling Contact to deliver on its decarbonisation goals.

Parties overlap in wholesale electricity supply

1.17 The Parties are both engaged in the production and wholesale supply of electricity in New Zealand. Contact currently has three key sources of electricity in its portfolio (in addition to a battery energy storage system (**BESS**) and a solar farm each under construction). These are central North Island geothermal generation, a large-scale hydro generation scheme in the lower South Island, and thermal generation in the Taranaki region and in the Hawkes Bay. Manawa's portfolio is composed of hydro generation assets geographically scattered throughout New Zealand, acquired wind generation and a small amount of acquired geothermal generation.[1] Manawa's hydro generation comes from small-scale schemes which can be broadly grouped into the following areas: central / eastern North Island, western North Island, upper South Island and lower South Island.

1.18 Unlike Contact, Manawa is not active in the supply of electricity to mass-market consumers and SME customers in New Zealand.[2] The majority of Manawa's electricity volumes are currently sold to Mercury under a long-term electricity supply agreement. When these volumes roll-off from October 2024[3], Manawa has publicly indicated its intention to re-contract those volumes via long-term, large volume contracts[4], which will result in market dynamics little different from the status quo.

1.19 The Commission has previously defined the relevant market to be the national wholesale electricity market encompassing all generation types.[5] That description of the market remains accurate today. While different types of generation have different characteristics, and electricity is traded through a range of contractual mechanisms, ultimately this is all part of the same wholesale electricity market. Suppliers and customers have a range of alternatives to supply and acquire electricity, and shift between these according to what best suits their strategy at the time. Accordingly, the Applicant believes it is appropriate to adopt the market definition previously identified by the Commission as the national wholesale electricity market (the **Relevant Market**).

1.20 For completeness, this application also addresses any downstream impacts in the national retail market (noting Manawa is not present in this market) and for ancillary services (where the parties compete to a very limited extent, and which is closely linked to the supply of wholesale electricity).

Transaction will not substantially lessen competition in any market

1.21 The Transaction will not substantially lessen competition in the Relevant Market (or any other market) because:

(a) the Transaction only results in a small market share uplift (with Manawa accounting for around 4.3% of electricity generated in New Zealand);

(b) the merged entity will continue to face strong and increasing competition from well-resourced competitors including Meridian, which will have a higher market share than the combined entity and Mercury with a similar market share, as well as Genesis. It will also not create any barriers to entry and the parties expect to face strong competition from the growing group of independent generators;

(c) the Transaction will not adversely impact competition in spot trading as the merged entity's conduct in spot trading will continue to be constrained by a number of factors, primarily its major competitors, the impact of the spot prices on its contractual position, the availability of run of river hydro inflows and the role of the EA in regulating market conduct. The attached analysis from Concept Consulting (**Appendix 2**) shows the limited proportion of time for

[1] Manawa also operates a very small scale ([REDACTED]) diesel peaker at Bream Bay in Northland. Note that [REDACTED]
[2] Trustpower sold its gas, telecommunications, and retail electricity supply business (excluding the supply of electricity to C&I customers) to Mercury NZ Limited in 2022, see https://infratil.com/news/update-on-trustpower-retail-sale-and-manawa-energy-launch/. This was the subject of clearance decision [2021] NZCC 16.
[3] https://static1.squarespace.com/static/619165fbcde2b908aa2622ff/t/646297d74629dc275183d5f9/1684183027364/MNW+IR+2023+Full+Report.pdf.
[4] https://indd.adobe.com/view/0066d319-b95e-4317-a867-929c04282af3 at p 7.
[5] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [48]. See: https://comcom.govt.nz/__data/assets/pdf_file/0026/73466/491.pdf.F

which the combined entity will be "pivotal" in the market and therefore its lack of ability or incentive to exercise market power in spot trading;

(d) the Transaction will increase the volume of electricity that can be sold through Fixed Price Contracts due to the complementarities of the Parties' portfolios. As demonstrated in the Frontier report, the Transaction reduces Contact's overall portfolio risk, so more of its portfolio will be suitable for long-term contracts. While this reduced portfolio risk will benefit the merged entity, it will also deepen the market for Fixed Price Contracts, to the benefit of retailers and commercial and industrial (**C&I**) customers;

(e) the Transaction will not affect availability of long-term flexibility contracts as neither party's portfolio has significant volumes of long-term flexible generation (most of the hydro assets owned by Contact and Manawa are largely run of river with limited storage);

(f) the Transaction will not adversely affect competition in the retail market. As set out above, Manawa is not active in the retail supply of electricity to 'mass-market' customers in New Zealand and therefore the Parties do not overlap in this market. The improved availability of Fixed Price Contracts will provide more opportunities for independent retailers to hedge themselves against risks from short-term spot market volatility, with the potential to increase retail competition;

(g) the Transaction will increase the speed at which new development projects are delivered because, post-transaction, Contact will be in a stronger position to execute the combined entity's development pipeline; and

(h) the Transaction results in minimal overlap in the provision of ancillary services. The combined entity will continue to be constrained by other generators, providers of demand-side response services and, increasingly, owners of BESS.

Conclusion: no SLC in any relevant market

For the foregoing reasons, the Applicant submits that the Commission should be satisfied that the Transaction will not have, and will not be likely to have, the effect of substantially lessening competition in any New Zealand market.

Part B: The Parties

2. **The Applicant: Contact Energy Limited**

Description of Contact Energy

2.1 The Applicant is a New Zealand limited company, incorporated on 8 November 1995. The Applicant is listed on the NZX (NZE: CEN) and ASX (ASX: CEN) and its shares are widely held. Approximately 74% of the Applicant's shares are currently held by New Zealand shareholders.

2.2 A structure chart of the Applicant (including the Applicant's proposed ownership of the Target following completion of the Transaction) is set out in **Appendix 3**.

2.3 The Applicant is an electricity generator and wholesaler and retailer of electricity, natural gas, broadband and mobile services. Its business operations are nationwide.

2.4 As set out in Appendix 3, the Applicant has three wholly owned New Zealand subsidiaries:

(a) Contact Energy Trustee Company Limited;

(b) Western Energy Services Limited[6]; and

(c) Contact Energy Solar Limited.

2.5 Contact also has a Cook Island incorporated subsidiary, Contact Energy Risk Limited, which is a captive insurance company.

Financial and capacity information

2.6 Integrated reports for the Applicant for the past two financial years are attached as Appendix 5.

2.7 The Applicant's annual revenue for the last two financial years is set out in Appendix 6.

Generation portfolio

2.8 Contact's current electricity generation portfolio consists of:[7]

(a) Hydro generation in the South Island located on the Clutha River;

(i) Clyde Dam on Lake Dunstan which has a generating capacity of 464 MW;

(ii) Roxburgh Dam which has a generating capacity of 320 MW;

(b) Geothermal generation in the North Island;

(i) Te Mihi geothermal power station which has a generating capacity of 166 MW;

(ii) Wairakei geothermal power station which has a generating capacity of 124 MW;

(iii) Wairakei binary plant which has a generating capacity of 14.4MW;

(iv) Ohaaki geothermal power station which has a generation capacity of 41 MW;

(v) Poihipi Road geothermal power station which has a generation capacity of 53 MW;

[6] See https://www.westernenergy.co.nz/.
[7] For further details on the Applicant's power stations see: https://contact.co.nz/aboutus/our-story/our-powerstations.

(vi) Te Huka geothermal power station which has a generating capacity of 26.2 MW currently;

(vii) Tauhara geothermal station, which is in its final stage of commissioning. It is currently operating at approximately 152 MW Guaranteed Net Power Output of and will reach a final generation capacity of 174 MW when fully operational.

(c) Thermal generation in the North Island;

(i) Taranaki Combined Cycle Power Station which is currently capable of operating at 330 MW (expected to be retired December 2024);

(ii) Whirinaki Peaker diesel plant has generating capacity of 155 MW;

(iii) GT21 and GT22 Stratford Peakers which each have a capacity of 105 MW; and

(iv) access to the Ahuroa Gas Storage facility in Taranaki.

In Development

2.9 Contact has a number of plants at various stages of construction:

(a) Te Huka 3 geothermal development, a 51 MW binary plant currently in commissioning and expected online in quarter 4, 2024.

(b) Glenbrook grid scale battery. A 100 MW, two-hour duration battery to store electricity for when it is needed most[8] and expected online in quarter 1, 2026.

(c) Kowhai Park Solar. A 150 MW ac solar farm being built in partnership with Lightsource BP and Christchurch Airport [9] targeted to be online by quarter 2, 2026.

2.10 Contact also has a significant development pipeline. It has 4 TWh of wind options under development, including the 330 MW Southland Wind Farm,[10] and 1.7 TWh of solar options under development including 150 MW at Glorit[11] and 150 MW at Stratford. [12] It has a second 100 MW BESS option consented at Stratford and another 1 TWh of consented geothermal capacity.

2.11 Further details regarding each of the Applicant's facilities are set out in the table in **Appendix 4** below.

Retail business

2.12 Contact is New Zealand's third largest electricity retailer behind Mercury and Genesis. As at 30 June 2024, it had 625,110 electricity, gas, mobile and broadband connections. [13]

2.13 Through its Simply Energy brand, Contact sells electricity to C&I customers, in addition to providing demand side flexibility products and assisting C&I businesses move towards a sustainable energy future.

Key customers, competitors, and trade and industry associations

2.14 The names and contact details for each of the Applicant's key competitors, and the trade or industry associations in which the Applicant participates, are set out in **Appendix 7** below.

[8] https://www.nzx.com/announcements/433677.
[9] https://www.nzx.com/announcements/436240.
[10] https://storymaps.arcgis.com/stories/b6227b92718f41bcbe145fa1ff0ed3a5.
[11] https://contact.co.nz/aboutus/our-story/our-projects/glorit.
[12] Note that Contact has the option to increase Glenbrook BESS from 100MW to 130MW.
[13] Note figure includes 4,547 C&I electricity connections which Contact retails through its Simply Energy brand.

2.15 The names and contact details for each of the Applicant's key customers (by value), and the revenue the Applicant earned from each of them in the last financial year, are set out in **Appendix 8** below. Also set out in Appendix 8 are the Applicant's top 5 customers in the Relevant Market.

Internal documents

2.16 Copies of the Applicant's relevant internal documents are attached as **Confidential Appendix 9**.

Contact details

2.17 Contact details for the Applicant:

Address	**Contact Energy Limited** Level 2, Harbour City Tower 29 Brandon Street Wellington, New Zealand
Contact person	Brett Woods, Head of Regulatory and Government Relations
Email Address	[REDACTED]
Telephone	[REDACTED]
Website	www.contactenergy.co.nz

2.18 Please direct all correspondence and notices for the Applicant to:

Address	**Bell Gully** Barristers and Solicitors PO Box 4199, Auckland 1140
Attention	Glenn Shewan / Chloe Kannangara
Email Address	glenn.shewan@bellgully.com / chloe.kannangara@bellgully.com
Telephone	+64 9 916 8726 / +64 9 916 8674

3. Target: Manawa Energy

Description of Manawa Energy

3.1 The Target is a New Zealand limited company, incorporated on 20 October 1992 (NZCN: 565426). It is listed on the NZX with ticker code MNW. The Target is directly owned:

(a) 51.1% by Infratil Limited

(b) 26.8% TECT Holdings Limited; and

(c) 22.1% by other shareholders

(collectively, the **Vendors**).

3.2 Infratil Limited is a New Zealand-based infrastructure investment company with interests in renewable energy, digital infrastructure, telecommunications, airports and healthcare assets. It is listed on the NZX with ticker code IFT. TECT Holdings Limited is owned by the trustees of the TECT Community Trust, (**TECT Trust**).[14] TECT Trust is a community-focussed trust, which owns a number of assets (in addition to its interest in Manawa) and provides support for community initiatives, facilities and events in the Tauranga and Western Bay of Plenty region.[15]

3.3 A structure chart for the Target is attached as **Appendix 10**.

3.4 Manawa is active in the generation of electricity, with a focus on generating renewable energy for New Zealand. Manawa Energy also supplies around 600 C&I customers with electricity.

3.5 Manawa was formerly Trustpower Ltd and rebranded as Manawa Energy on 1 May 2022 upon completion of the sale of its retail energy and telecommunications division to Mercury. Manawa has a portfolio of ~510 MW of generation capacity across 25 hydro schemes, situated throughout New Zealand.

3.6 Specific details regarding the Target's facilities in New Zealand, their capacities and the services provided at each, are set out in the table in **Appendix 11** below.

Generation assets

3.7 Manawa Energy operates across ten regions of New Zealand, and has a portfolio of ~510MW of generation capacity across 25 hydro schemes and one thermal power station. Manawa Energy also operates one irrigation pumping station. Manawa has a 75% shareholding in King Country Energy (**KCE**), and manages KCE's hydropower stations, which make up six of Manawa's 25 hydro schemes. Manawa also purchases wind generation from Mercury's Tararua and Mahinerangi wind farms through long-term contracts and geothermal energy from Eastland Generation's TOPP1 geothermal power station.

Financial information

3.8 The Target's FY24 and FY23 Integrated Reports and financial statements are attached as **Appendix 12**.

Key customers, competitors, and trade and industry associations

3.9 The names and contact details for each of the Target's key competitors, and any trade or industry associations in which the Target participates, are set out in **Appendix 14** below**.**

3.10 The names and contact details for each of the Target's key customers (by value), and the revenue earned from each in the last financial year, are attached as **Confidential Appendix 15**. Also set out in **Confidential Appendix 15** are the Target's main 5 customers in the Relevant Market.

Contact details

3.11 Contact details for the Target:

Address	**Manawa Energy Limited** Private Bag 12055 Tauranga Mail Centre Tauranga 3143
Contact person	Clayton Delmarter, Chief Executive

[14] TECT was established in 1993 to manage the proceeds from the sale of Tauranga Electric Power Board's assets. The Board's assets were sold when the electricity sector in New Zealand was deregulated and restructured.
[15] https://app.companiesoffice.govt.nz/companies/app/ui/pages/companies/597366.

Telephone	[REDACTED]
Email	[REDACTED]
Websites	https://www.manawaenergy.co.nz/

3.12 Please direct all correspondence and notices for the Target to:

Address	A&B Competition Lawyers Level 1, 27 Chancery Street Auckland, 1010
Attention	David Blacktop / Dipti Manchanda
Email Address	david@abcompetitionlawyers.nz / [REDACTED]
Telephone	+6421366284

Maps

3.13 Maps of the North and South Islands that mark the Parties' and their competitors' facilities, are attached as **Appendix 18** to this Application.

Part C: The Transaction

4. **Transaction structure**

4.1 Clearance is formally sought on the terms set out in section 7 below. The transaction will occur by way of a cash and scrip offer, which will be governed by a scheme of arrangement under Part 15 of Companies Act 1993 (the **Scheme**). Pursuant to the Scheme:

(a) Contact will acquire 100% of the shares in Manawa (all of which are listed on the NZX); and

(b) Manawa's shareholders will receive consideration comprising cash and scrip for each Manawa share held by them as described in paragraph 1.1 of this Application. As a result of the scrip consideration component, it is estimated Manawa shareholders will obtain an approximate aggregate 18% shareholding in Contact. Post Transaction, Infratil will hold a 9.5% interest in Contact and TECT will hold a 5% interest in Contact.

4.2 Manawa will be delisted from the NZX.

4.3 The Scheme is governed by a Scheme Implementation Agreement between Contact and Manawa dated 11 September (the **SIA**) The Transaction is conditional on the Applicant receiving clearance from the Commission (among other conditions precedent).

5. **Transaction documents**

5.1 The SIA is attached as **Appendix 16**.

6. **Global filings**

6.1 There are no global filings involved with the Transaction as the only relevant area of overlap between the Parties is in New Zealand.

7. **Clearance sought**

7.1 Formally, this application seeks clearance for Contact to acquire up to 100% of the shares in Manawa.

Part D: Industry Background

8. Overview of the wholesale electricity market

8.1 The New Zealand electricity industry is structured around the national wholesale electricity market, on which electricity generators sell electricity into the wholesale market or "pool" and then retailers and grid connected industrial customers purchase electricity from the wholesale market or "pool".

8.2 The price of wholesale electricity varies depending on supply and demand and is calculated every half-hour for approximately 285 nodes on the national grid.[16] Generators that are larger than 10 MW or that are connected to the national grid compete for the right to generate electricity to satisfy demand.[17] Generators submit offers to supply electricity from power stations at 59 grid injection points. Retailers and major electricity users submit bids for electricity to be supplied for half-hourly periods at ~226 grid exit points. The System Operator (an independent function of Transpower) uses those bids and offers and the forecast demand to ensure that electricity supply and demand are always in balance and to produce forecast market prices ahead of real time.

8.3 The System Operator's Scheduling, Pricing and Dispatch (**SPD**) model minimises the total cost of generation (based on generators' offers) and instantaneous reserve required to meet demand for a given half hour trading period by selecting the lowest-cost combination of resources to satisfy demand and ensure a reliable supply. The spot price in that half-hour trading period is effectively the price offered by the last power station to be dispatched in order to meet demand, called the "marginal station" and all stations offering generation at a price less than that are instructed to run ("dispatched") with price then set at the marginal station offer for the half hour.

8.4 In addition to buying and selling physical electricity directly via spot trading, market participants can enter into financial contracts (hedges) to manage their exposure to spot prices and smooth out some or all of the volatility in spot prices. For retailers and large C&I users, a hedge allows them to avoid exposure to high electricity prices. Generators may also enter into hedges to offset their exposure to various risks, including risks associated with variability in their generation output as well as spot price volatility.

8.5 Participants can enter hedges in several different ways. For example, all major generators are required to trade a certain amount of baseload supply on the Australian Securities Exchange (**ASX**) per day. Alternatively, buyers can negotiate directly with sellers to agree on a price by entering into over the counter (**OTC**) hedges. Buyers can also purchase financial transmission rights (**FTR**) through an auction process managed by the FTR manager. Electricity customers who can modify their electricity consumption in response to electricity prices, can also participate in the wholesale electricity market by submitting demand-side bids to reduce demand for periods of time, which will reduce the resources required to meet demand and can therefore impact spot price. This is referred to as demand-side flexibility.

8.6 The national wholesale electricity market is made up of the four gentailers: Genesis, Mercury, Meridian and Contact, along with a number of other generators, including Manawa, Nova, Eastland Generation and (for the most part) newer entrants with wind and solar operations either in the market or under development, such as Pioneer Energy, Lodestone Energy and NZ Windfarms. Some electricity distribution businesses are also investing in generation assets, for example WEL Network, Top Energy and Mainpower (and the New Zealand Government has recently announced proposals to relax the restrictions on distribution businesses owning generation capacity).[18] More detail regarding these competitors is provided in **Appendix 19**. In addition to those set out in Appendix 19, Contact expects that there will be a large number of early- stage generation projects which remain confidential while they remain under assessment for feasibility or subject to third-party agreements (e.g. such as with landowners).

[16] https://www.ea.govt.nz/industry/wholesale/.
[17] This is subject to constraints, such as the available transmission capacity. https://www.ea.govt.nz/industry/wholesale/spot-market/.
[18] https://www.beehive.govt.nz/release/urgent-action-taken-bolster-energy-security#:~:text=Cabinet%20has%20committed%20to%3A,LNG)%20as%20a%20stop%20gap.

8.7 The Electricity Authority's (**EA)** role, as regulator of New Zealand's electricity industry, is to ensure that the wholesale electricity market, including associated hedging, operates efficiently and competitively. The EA makes and administers the Electricity Industry Participation Code 2010 (the **Code**) which governs nearly every aspect of the New Zealand electricity industry. Wholesale market participants must comply with all their industry obligations as set out in the Code. More generally, the EA monitors market participants to ensure efficient operation of the industry and actively considers trading conduct and the wholesale market structure. Accordingly, the EA is well placed to address market issues as they arise.

9. Overview of the national retail electricity market

9.1 The retail market is made up of the four gentailers and a number of independent retailers. As set out above, Manawa does not supply directly to mass-market residential and SME consumers in the retail market, having sold its retail business to Mercury. Accordingly, the Transaction does not result in any change to retail market shares. However, for completeness, we set out in **Appendix 20** information on the retail market participants. This includes Genesis, Mercury and Meridian, as well as independent retailers including Electric Kiwi, Flick Electric, Pulse Energy and Slingshot/2degrees.

10. C&I customers

10.1 Generators also supply electricity to large C&I customers. C&I customers are typically large electricity volume users (typical demand ranges between 5 – 90 GWh per annum). Both Manawa and Contact have contracts with C&I customers. Contact's C&I arrangements include its relationship with NZAS in respect of providing electricity to Tiwai Point (as described further below). Contact's other C&I customers include [REDACTED].

11. Impending changes in the electricity industry

11.1 New Zealand's electricity system is undergoing significant change. The Ministry of Business, Innovation & Employment (**MBIE**) has described this as a "once in a lifetime transition to an expanded and more highly renewable energy system".[19] BCG's 2022 report on climate change in New Zealand, highlights that New Zealand will need an additional 34.2 TWh of electricity per annum by 2050 to meet its climate goals and transition to a low-carbon economy.[20] The National Party's Electrify NZ policy promises to "cut red tape to drive investment in renewable electricity generation so New Zealand can double its supply of affordable, clean energy and become a lower emissions economy".[21] This fits within the global shift for countries to reduce carbon emissions. A more renewables based system has extensive implications for the industry.

(a) As the electrification of the New Zealand economy continues, demand for electricity will increase particularly as a result of transition away from fossil fuels in industries such as transport, industrial process heat and residential heating. Transpower estimates that a 68% increase in electricity generation is required by 2050 to meet increased demand.[22]

(b) At the same time, the amount of intermittent renewable (solar and wind) generation is set to expand substantially. Solar projects make up around 63% of all actively pursued generation projects (by output) that could come online by the end of 2027, [23] while existing gas and coal powered generation is reduced and some aging plants are retired from service.[24]

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[19] MBIE "Measures for Transition to an Expanded and Highly Renewable Electricity System" report dated August 2023, at page 7.
[20] https://web-assets.bcg.com/b3/79/19665b7f40c8ba52d5b372cf7e6c/the-future-is-electric-full-report-october-2022.pdf.
[21] https://assets.nationbuilder.com/nationalparty/pages/17865/attachments/original/1684306518/Electrify_NZ.pdf?1684306518 at p 1.
[22] Whakamana I te Mauri Hiko. Available at: https://static.transpower.co.nz/public/publications/resources/TP%20Whakamana%20i%20Te%20Mauri%20Hiko.pdf?VersionId=FljQmfxCk6MZ9mIvpNws63xFEBXwhX7f at p 9.
[23] https://www.ea.govt.nz/documents/4414/Generation_Investment_Survey_-_2023_update.pdf at p 17.
[24] In a May 2023 report by Concept Consulting "Potential demand for thermal generation in the transition to a renewables-based electricity system", Concept's base case projections indicate that by 2032 thermal generation will be about 1.5% of total supply compared with the last five years, when thermal generation averaged 14% of total supply.

(c) The shift away from thermal generation to increased prevalence of intermittent renewables has important implications for generation patterns and the management of industry risk. As thermal generation is retired, the market will need to find new ways to ensure security of supply during periods of low intermittent supply and periods of peak demand. This will likely involve a mix of flexible hydro, batteries, demand response, and biomass.

(d) Conversely as the supply system decarbonises, thermal generation will be removed from the market. This is occurring as a result of reduced gas availability, higher operating costs, increasing carbon prices, and alternative sources of generation being introduced, meaning that remaining thermal generation will be dispatched less often. Typically this generation had operated in either dry years or more frequently in periods of higher demand like winter months in New Zealand.

(e) There will be more participants in the electricity market through small-scale generation and storage and demand-side flexibility initiatives.[25]

11.2 As a result of these impending changes, providers that are able to firm new sources of intermittent generation (i.e., fill in the gaps when it is not windy or sunny) will be increasingly important. Firming generation can come from:

(a) the ability to store energy in the short term (e.g. intra-day/intra-week);

(b) the ability to store energy in the longer term (e.g. seasonal) (i.e. through hydro flexibility, biomass, biofuels etc.); or

(c) generators with patterns of generation that match customer demand profiles.

Implications of changing industry environment on risk

11.3 Market participants usually choose to minimise exposure to price volatility and the resulting uncertainty this creates for financial returns.[26] This has become more important than ever, with price volatility increasing as the market becomes more renewable, and therefore more exposed to weather, with less back-up from fossil fuel powered plants.[27]

11.4 Independent retailers and C&I customers have an increasing need to be hedged to avoid exposure to wholesale price volatility like the market has experienced in winter 2024 with lack of water, gas and wind. Those that are not hedged risk facing periods of sustained high electricity costs, affecting the viability of their operations.

11.5 Generators also face price risk. A generator will try to align its committed sales volumes with its generation output. If actual generation is less than expected (e.g., due to an unplanned plant outage or a sudden and unexpected lack of fuel) then a generator will need to purchase electricity at spot prices in order to meet its committed volumes. On the other hand, if a generator commits to sell less volume than its actual output, then it faces the opposite risk (i.e., that wholesale prices are low, reducing earning potential). As the volume of renewable energy in the market increases, there is expected to be more periods where wholesale prices are at or close to $0/MWh, e.g. when it is rainy, windy and/or sunny and the overall supply of electricity exceeds demand. Conversely, it is also expected that there will a number of periods where prices are high due to an absence of rain, wind or sunlight.

11.6 Balancing these risks requires sophisticated portfolio management, taking into account the patterns of generation output (e.g. expected weather patterns and fuel contracts), and demand profiles (e.g., seasonal differences and differences across the day). Generators will also buy and sell hedge contracts to address these risks in their portfolio.

[25] Transpower estimates that there will be 3.9 million distributed energy resources across the system by 2035. MDAG at 4.41 – from page 61 of Transpower's Whakamana i Te Mauri Hiko – Empowering our Energy Future report at https://www.ea.govt.nz/documents/1097/06-100-Renewable-Electricity-Supply_-Simulation-Assumptions-and-Results.pdf.
[26] https://www.ea.govt.nz/industry/wholesale/.
[27] https://www.ea.govt.nz/documents/4414/Generation_Investment_Survey_-_2023_update.pdf at 4.27.

12. Winter 2024 energy supply issues

12.1 Winter 2024 saw these transitional challenges become much more evident. The market faced a perfect storm of historically low inflows into hydro catchments (with national hydro storage levels at 19 August 2024 at around 54% of the average for that time of year; the lowest since 1992), significantly constrained natural gas supply, a "wind drought", and increased demand (especially during what was an unseasonably cold May). These compounding factors constrained electricity supply which meant that more expensive fuel, such as diesel had to be used to meet high winter demand, and this was reflected in wholesale prices.

12.2 These supply-side constraints manifested in a number of ways, including:

(a) Several industrial users, who chose not to hedge their demand, found themselves exposed to spot prices, leading to the closure or reduction of their operations.

(b) Contact and Genesis Energy entered into a gas supply arrangement with Methanex New Zealand Limited (which consumes approximately 45% of New Zealand's natural gas output for the production of methanol) to close its operations for a short period of time to make more gas available for electricity generation.

(c) The New Zealand Aluminium Smelter provided significant demand response under its electricity demand response arrangements with Contact and Meridian to help manage South Island hydro lake levels and support New Zealand's security of supply.

(d) An adjustment to the "Alert Contingent Storage Release Boundary" was made to allow hydro generators to access their contingent storage earlier than under current settings if required.

(e) Manawa was forced into a trading halt and downgraded its earnings guidance after:

(i) electricity retailer, Prime Energy, defaulted on payments to Manawa who acted as a wholesale intermediary for the electricity retailer; and

(ii) after extended dry and calm sequences over a number of months significantly impacted its generation volumes from hydroelectricity schemes and also reduced the electricity volumes provided to Manawa under its wind power purchase agreements.

(f) The Government established the Gas Security Response Group in May 2024, with the group being tasked to help the Government formulate plans to respond to the domestic gas market being significantly tighter than had previously been anticipated.

12.3 While most market participants, including retail customers, will be hedged, and therefore will be insulated from these changes, the winter 2024 supply conditions demonstrate the impact that dry year risk presents to the wholesale electricity market.[28] The reduction in hydro-volatility in Contact's post-Transaction generation portfolio will enable it to better manage this risk, recognising that in very dry years, like the current year, some residual risk remains.

12.4 The best long-term solution is further investment in new renewable generation and this transaction will give Contact greater ability to execute the combined entity's development pipeline to continue to deliver on its decarbonisation goals. The Transaction will also increase the volume of Fixed Price Contracts in the market to improve access for independent retailers and C&I customers to hedging arrangements.

[28] For example, the amount of energy consumed by customers that prefer Contact to directly pass through spot prices, represents approximately [REDACTED]% of Contact's electricity generation in FY24.

Part E: Counterfactual and Rationale

13. **Counterfactual**

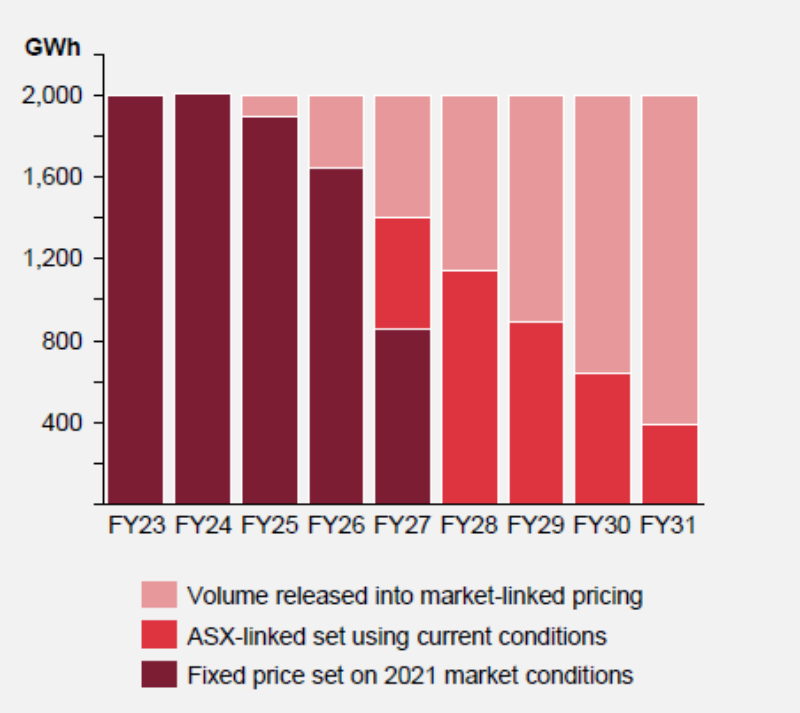
13.1 The counterfactual for each party needs to reflect impending changes that will take place in New Zealand's electricity market described above.

Manawa Energy Counterfactual

13.2 The Applicant considers that the most appropriate counterfactual for Manawa is the status quo, in the sense that Manawa will continue to operate as an independent generator and wholesaler of electricity. The Applicant expects that Manawa will also continue to pursue its development pipeline, although the speed at which this will progress is uncertain.

Manawa currently has a long-term electricity supply agreement (in the form of a shaped contract for differences (**CFD**)) with Mercury, which Manawa entered into as part of the sale of its retail electricity business to Mercury. This will roll off from 1 October 2024 through to 30 September 2031, as illustrated in Figure 1 below.[29] Manawa has publicly indicated its intention to re-contract those volumes via long-duration, large volume contracts.[30] Contact expects these volumes would be contracted to parties with investment grade credit rating, which include gentailers, C&I and some independent retailers.

Figure 1: Manawa's hedge sales to Mercury by financial year



13.3 See **Confidential Appendix 17** in relation to the Target's counterfactual. In summary, [REDACTED]

[29] https://api.nzx.com/public/announcement/421486/attachment/406955/421486-406955.pdf, at p 29.
[30] https://api.nzx.com/public/announcement/421486/attachment/406955/421486-406955.pdf, at p 7.

Contact Energy Counterfactual

13.4 Due to the dynamics of the electricity market, Contact's current position is not likely to be representative of the counterfactual.

13.5 As set out above, Contact currently has three different types of assets (with BESS and solar under construction). These currently play different roles in the market.

(a) The geothermal assets operate as baseload generation. These assets are always on, except for occasional planned maintenance or unplanned outage. They are usually offered into the market at $0/MWh[31] to ensure they are dispatched as their output cannot easily be reduced.

(b) The Clutha hydro scheme consists of two large dams (Clyde and Roxburgh) that are largely "run of river" (typically 85% of energy in a year is run of river, which means it cannot be stored for longer than a few days), with some limited longer-term storage at Lake Hawea. Selling generation that is predominantly "run of river" on a standalone basis to retail customers is challenging. This is because its variability (particularly seasonal variability as a result of snow melt, rainfall etc.) does not coincide with consumer demand patterns and inflows can vary materially from month to month (as opposed to hydro schemes where inflows fall into large storage lakes and therefore can be managed and released in the weeks and months ahead).

(c) Contact's thermal assets are necessary to firm the Clutha scheme, i.e., to fill in capacity when the output of the Clutha is low, and in response to periods of high electricity demand from retail customers during winter. Pairing the Clutha with flexible assets has been a crucial feature of Contact ever since its inception. Upon its initial separation from ECNZ, Contact Energy was paired with the Otahuhu A, Stratford (a plant preceding the current Stratford peakers, and decommissioned in 2001), Whirinaki (a plant preceding the current Whirinaki diesel peaker and decommissioned in 2001) and New Plymouth (decommissioned in 2008) thermal power stations (and associated Maui gas contracts) which was seen as necessary to ensure a viable portfolio. Later, Contact developed and / or purchased additional thermal assets in the form of Otahuhu B, TCC, Te Rapa Co-Generation facility, Whirinaki and the Stratford Peaker Plants.

[31] Or $0.01 if not cleared in the must-run dispatch auction.

13.6 Figure 2 below demonstrates that Contact runs Lake Hawea down over the winter period. By August, in an average year, stored water in Lake Hawea is running low. Figure 3 below demonstrates that Contact's thermal assets provide risk cover over that period.

Figure 2: Contact's hydro storage at Lake Hawea

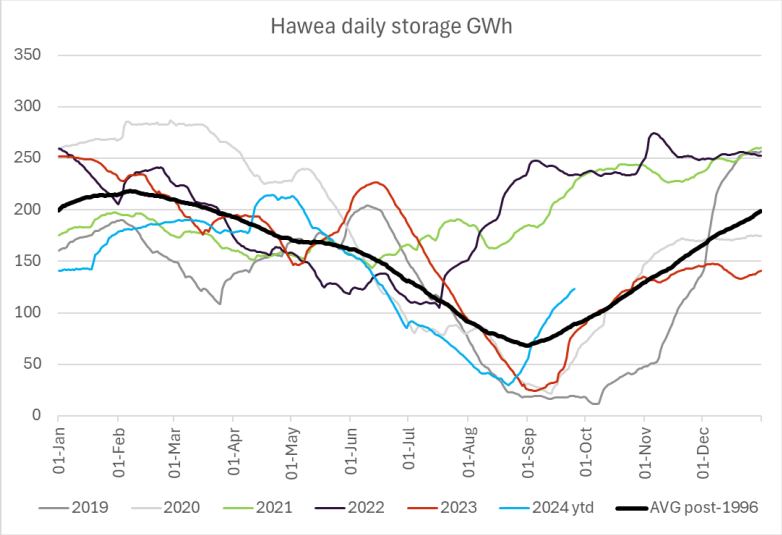
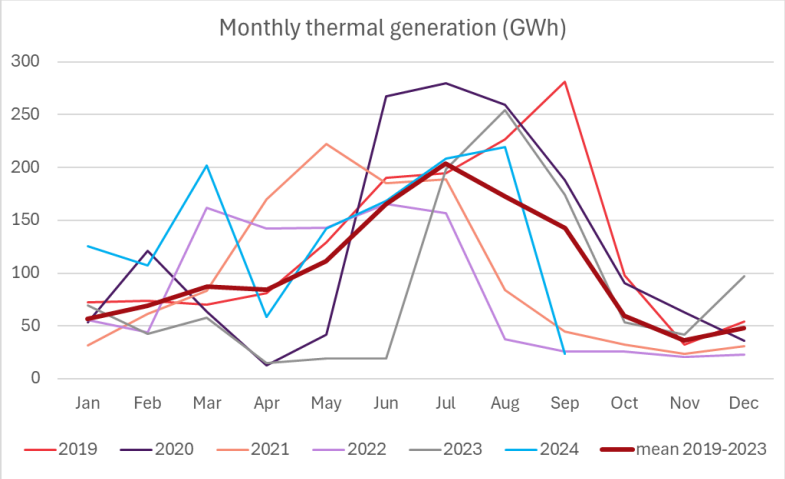


Figure 3: Contact's use of thermal over a year



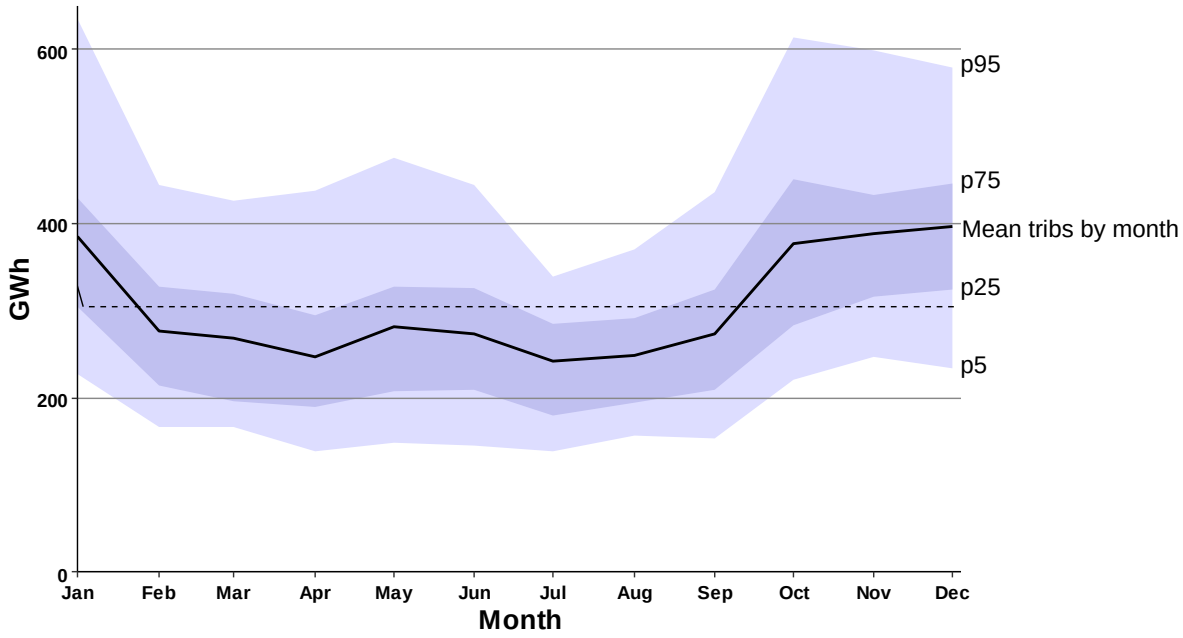
13.7 In recent years, Contact has been the leader in decarbonising the electricity sector. It decommissioned the previous Stratford (200MW) and Whirinaki (220MW) plants in 2001, New Plymouth gas plant in 2008 (300 MW), the Otahuhu gas plant in 2015 (400 MW), and last year stopped producing electricity at the Te Rapa cogeneration facility (44MW). This has meant that its total combined Scope 1 and 2 generation emissions have reduced from 2,213 ktCO2e in FY12, to 948 ktCO2e in FY24, a nearly 60% reduction.

13.8 Contact has now set a target of reaching net zero emissions from its generation activities (Scope 1 and 2) by 2035. This starts with the expected closure of TCC at the end of 2024 and in later years it expects to be able to reduce output at the Stratford peakers. Furthermore, while decarbonisation is strategically important to Contact, the ongoing cost of maintaining and fuelling thermal generation in New Zealand, particularly for baseload generation, continues to rise. Material reductions in gas supply, alongside rising carbon costs and ageing gas and diesel fired generation plants has made thermal generation significantly more expensive than attractive renewable investments which are not reliant on uncertain gas volumes. As a result of the

significant industry investment in renewable generation,[32] Contact expects the need for thermal firming will decline, particularly as operating and investing in thermal generation becomes increasingly uneconomic.

13.9 This decarbonisation journey is an important part of New Zealand's transition to a net zero economy, addressing climate change and meeting New Zealand's international commitment to be net zero by 2050. However, it puts Contact in a challenging position because of the highly variable nature and summer weighted inflow pattern of the Clutha scheme, and its vulnerability to a South Island dry year. The figure below demonstrates the variability in output of the Clutha in a typical year. Excluding Lake Hawea releases, mean generation by month naturally varies by as much as 90 GWh per month from the average, and variation between a wet (p95) and a dry (p5) year varies by as much as + / - approximately 200 GWh in any month at the extremes (the equivalent of + / - 275 MW running 24/7 for the month). Lake Hawea's limited storage, thermal generation and a carefully considered level of electricity sales has played a critical role in managing this variability for Contact with thermal generation being turned off in periods of high inflows and then re-started in periods of low inflows and / or high demand. This is increasingly challenging to manage given upstream deliverability issues faced in the gas sector and the expected retirement of Contact's gas-fired TCC generation unit.

Figure 4: Monthly seasonal variation in Clutha tributary flows[33]



13.10 Once thermal generation is retired, Contact's portfolio will be less able to respond to the demand patterns of residential and C&I customers with a winter shaped demand profile. This is further compounded by Contact's large volume of geothermal assets, which run constantly all year round, so also have a significant amount of generation in summer months. As a result, Contact expects generation to materially exceed fixed price sales over summer, which means it will be both exposed to volatility of spot prices (and subsequent earnings) and a potentially emerging trend where summer prices soften in response to the development of solar generation.

[32] Renewable energy is expected to make up 98% of total electricity by 2030. This figure is expected to increase to 99% by 2040. See: https://web-assets.bcg.com/b3/79/19665b7f40c8ba52d5b372cf7e6c/the-future-is-electric-full-report-october-2022.pdf at p 118.

[33] Tribs data is sourced from EMI flow data. See: https://www.emi.ea.govt.nz/Environment/Datasets/HydrologicalModellingDataset/2_Flows_20221231
Tributary flows into Dunstan, Roxburgh, and outflows from Wanaka are converted into GWh, by month using flow data from 1980 to 2020. The mean monthly GWh along with the p5, p25, p75, and p95 for each month are shown. The dotted line is the mean monthly GWh averaged over the year.

13.11 Contact has already faced considerable uncertainty in its upstream fuel supplies over the past several years. [REDACTED[34]] The production forecasts submitted each year to MBIE by the field operators demonstrate this uncertainty. On 1 January 2022, the forecast for 2024 was 215 PJ (sum of production forecasts for all fields) however the forecast had fallen by 77 PJ to only 138 PJ when the forecast was updated on 1 January 2024.[35] An independent analyst is forecasting an even lower number will be realised for 2024. The accuracy of future forecasts is unclear.

13.12 The figure below shows the change in Contact's volumes for key sales channels since FY 2018. The sales categories are defined as:

- **Retail:** Mass market customers including small and medium enterprises.
- **Commercial & Industrial:** larger businesses (through Simply Energy).
- **Long term hedges:** Over-the-counter deals with a tenor typically greater than one year.
- **Short term hedges:** Over-the counter deals with a tenor typically less than one year.
- **Tiwai:** Energy agreement with New Zealand Aluminium Smelters Limited.

13.13 The figure below shows the change in Contact's volumes for key sales channels since FY 2018.

Figure 5: REDACTED [36]

[REDACTED]

13.14 As Figure 5 above illustrates, C&I volumes offered by Contact have reduced substantially (given these contracts require longer-term certainty of generation output). This has resulted in less choice for C&I customers by reducing their options to acquire longer-term Fixed Price Contracts. Contact has instead increased its volumes sold via short-term hedges (such as sales on the ASX Futures market) which can be more easily adjusted to reduce volume based on actual generation output and delivered gas availability, but which provide less long-term certainty for customers. It expects this trend to continue.

13.15 The key change going into next year for Contact will be the expected decommissioning of the baseload TCC gas plant, and the full operation of the Tauhara and Te Huka Unit 3 geothermal stations. This will mean Contact's total generation output will increase, but it will have less flexibility to firm the Clutha hydro scheme, particularly through the winter months given the comparatively low hydro inflows.

13.16 [REDACTED]

13.17 [REDACTED] [37]

13.18 [REDACTED]

Figure 6: REDACTED[38]

[REDACTED]

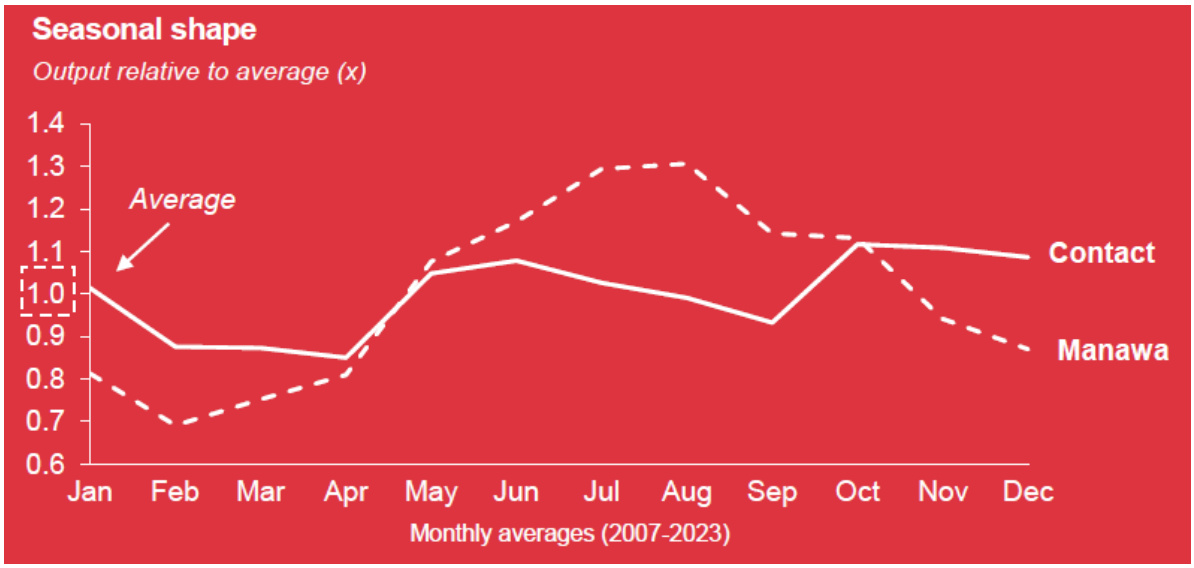
[34] [REDACTED]
[35] https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-statistics-and-modelling/energy-publications-and-technical-papers/energy-in-new-zealand.
[36] The figures presented in FY18 do not distinguish between long versus short term hedges as these figures were not reported that year; the chart assumes all volume is in the long term hedge category.
[37] [REDACTED]
[38] [REDACTED]

13.19 The Transaction represents an opportunity for Contact to address the portfolio issues it faces in the counterfactual and establish a better-balanced decarbonised portfolio. This will allow the combined entity to be more competitive in offering a greater volume of Fixed Price Contracts to the wholesale electricity market.

14. Rationale

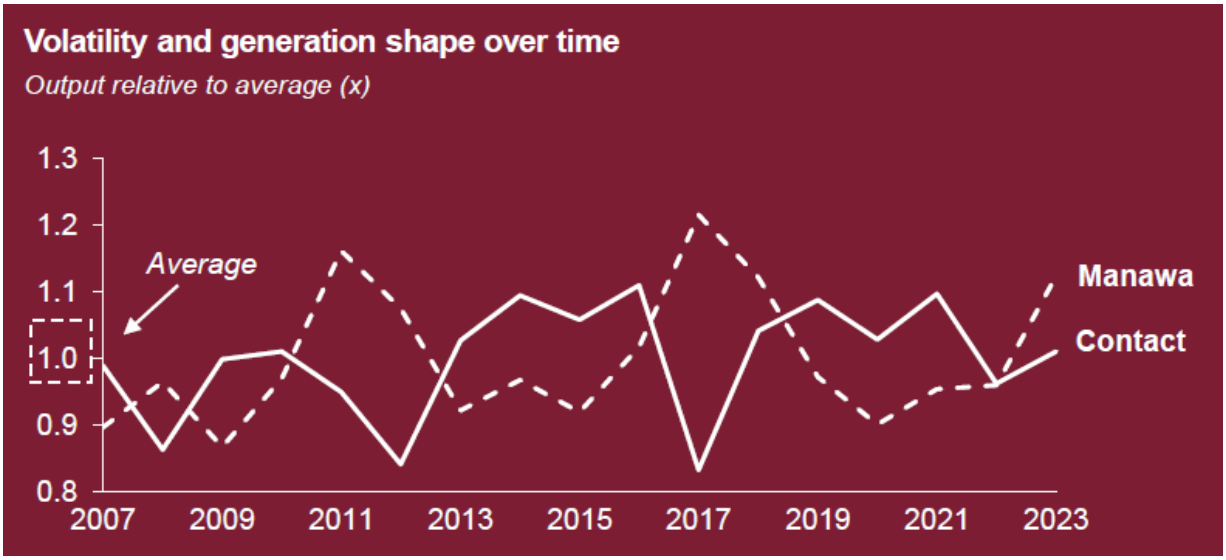
14.1 Acquiring Manawa will give Contact renewable energy generation which is winter-weighted and less affected by dry hydrological periods in the South Island, and therefore provides a natural hedge to its Clutha scheme which has a summer generation weighting. This will allow Contact to reduce hydro volatility in its post-Transaction generation portfolio, which will enable it to better manage its risk, including South Island dry year events, while continuing to deliver on its decarbonisation goals. This will enhance Contact's ability to offer Fixed Price Contracts to the benefit of electricity retailers and C&I users, and ultimately to end consumers. The following charts show the complementary nature of the Parties' hydro portfolios both on a monthly and long-term basis.

Figure 7: Complementary nature of the Parties' hydro portfolios on a monthly basis[39]



[39]Source: EMI and company analysis. Note: Annual references are to calendar years. Monthly data is calculated over the period 2007-2023. Excludes King Country Energy schemes and some very small schemes where continuous data is not available.

Figure 8: Complementary nature of the Parties' hydro portfolios on an annual basis[40]



14.2 The analysis from Frontier Economics (attached at Appendix 1) shows that Manawa's winter weighted hydro portfolio typically has higher inflows during periods where Contact's generation is low, and will reduce the impact of a South Island dry year on the combined portfolio. Post-Transaction, this reduction in risk will enable the combined entity to enter into proportionately more Fixed Price Contracts together than if they operated separately.

14.3 As outlined in further detail in the Frontier Economics report, due to the complementary nature of the two portfolios, the merged entity will have sufficient increased certainty in relation to the combined hydro portfolio to increase the volume of Fixed Price Contracts in the market by approximately 200 - 300 GWh annually when compared to the counterfactual.[41] This conveys the positive impact that the Transaction will have on improving liquidity in hedging, which will allow all electricity market participants to hedge their risk more efficiently.

14.4 Contact also expects that these portfolio synergies will reduce total emissions across the market. This is because optimising generation across multiple storage lakes will lead to the most efficient use of water by reducing spill and ensuring that more water is available to meet peak demand – on a daily and seasonal basis. The increased diversity and efficiency of hydro assets will reduce Contact's need for thermal generation.

14.5 The Transaction is the most effective way to realise these portfolio synergies. It may be possible for Contact to partially address this risk by entering into contracts with other parties to provide winter energy and dry year support. However, this will not be as effective as the transaction because:

(a) each asset has its own patterns and variability, which need to be managed in real time. For instance, the combined operation of hydro storage necessary to provide benefits such as reduced spill during large inflow events, as well as maintaining flexibility during dry periods, cannot be achieved through contracting;

(b) Contact is most vulnerable to short-term dry periods (months), which occur sporadically, and is not well suited to counterparties' incentives to offer cover for full dry years. That means Contact may need to inefficiently over-buy dry year cover;

[40] Tribs data is sourced from EMI flow data. See: https://www.emi.ea.govt.nz/Environment/Datasets/HydrologicalModellingDataset/2_Flows_20221231
Tributary flows into Dunstan, Roxburgh, and outflows from Wanaka are converted into GWh, by month using flow data from 1980 to 2020. The dotted line is the mean monthly GWh averaged over the year.
[41] The 200-300GWh uplift figure assumes a P90-P95 risk level is adopted.

(c) any counterparty would also face its own risks that it would seek to address via contractual solutions, which may make it challenging to replicate the synergies of the Transaction; and

(d) any contractual arrangement would be impractical, very complicated, and would not be enduring over the long term. The duration of contracts is typically very short and tied to specific plant and fuel supply interruptions, reducing the ability to correspondingly offer longer duration Fixed Price Contracts.

14.6 In addition, the Transaction will benefit Contact in the following ways:

(a) better enable Contact to firm its portfolio when reducing reliance on its thermal assets alongside future intermittent wind and solar developments, therefore unlocking further potential in its development portfolio;

(b) generate operating cost efficiencies; and

(c) capital market benefits, such as from inclusion in the MSCI index and other upward re-rating of market trading multiples, improving the ability to access funding for the development pipeline.

Part F: Relevant Markets

15. **Overlap between the Parties**

15.1 The Parties' activities overlap in the New Zealand wholesale electricity market. This is the appropriate frame of reference to assess the Transaction for the following reasons:

(a) this is consistent with the market definition approach the Commission has previously taken in relation to mergers of electricity generators;[42]

(b) while trading in electricity takes place through a range of different contractual mechanisms, these are all closely interrelated, and are substitutable (i.e., hedge contracts are substitutable for spot trading, customer load shifting and building new generation), so do not constitute separate markets;

(c) the New Zealand electricity market operates on a national basis, with the New Zealand transmission network capable of transporting electricity the length of the country. While prices may differ at different grid injection and exit points around the country, these nodal prices are primarily driven by demand and supply patterns across the country;

(d) in any event, even if there were transmission constraints at any point on the transmission network, there are no areas where the parties' generation assets overlap to such a degree that these would warrant separate analysis; and

(e) the Parties do not overlap in the retail market. As set out above, Manawa has sold its retail electricity business and no longer competes in this market. Manawa and Contact both sell to C&I customers, which forms a segment of the national wholesale electricity market.

16. **Commission's previous approach to market definition**

16.1 The Applicant is aware of the Commission previously defining the relevant market as the national electricity generation and wholesaling market in *Contact Energy Limited and Natural Gas Corporation Holdings Limited*.[43] The Commission noted, with reference to its previous decisions related to electricity trading, "this is the market in which the generators (sellers) and buyers of wholesale electricity interact to determine the prices and quantities traded".[44] More recently, in its 2021 assessment of 10-year wholesale electricity hedge between Mercury and Trustpower, the Commission similarly defined the relevant market as the national market for the wholesale supply of electricity.[45]

16.2 We consider that the Commission's prior approach to market definition remains appropriate to assess the Transaction.

17. **Product market**

No separate markets for different contractual mechanisms

17.1 As set out above, electricity market participants trade electricity through a variety of contractual mechanisms. While electricity is traded based on spot prices, with prices determined on a half-hourly basis, market participants also trade futures on the ASX market and enter into agreements directly with each other (OTC contracts) to hedge their exposure to spot prices.

[42] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [48].
[43] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [48].
[44] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [38].
[45] *Mercury NZ Limited and Trustpower Limited's retail business*, 2021 Decision No. 16 at [42]. See: https://comcom.govt.nz/__data/assets/pdf_file/0036/267687/2021-NZCC-16-Mercury-and-Trustpower-Final-determination-27-September-2021.pdf.

17.2 However, while such mechanisms are relevant to the competition assessment of the Transaction, they do not constitute separate markets. Ultimately, futures contracts and OTC contracts are all based around an expectation of what the spot price will do at a given point in time. In this way, they are inextricably linked. Equally, while OTC contracts can have more flexible features than a futures contract traded on the ASX, prices of these instruments will move up and down in unison. Again, this is because they are ultimately both linked to the spot price.

17.3 This is consistent with the Commission's approach in previous cases. The Commission has previously recognised the "close interrelationship between all types of contracts and spot sales". It has acknowledged that "the underlying critical feature of all is the physical supply and demand of electricity".[46]

17.4 Relatedly, buyers of wholesale electricity include both electricity retailers and large C&I customers, all of which buy at wholesale. Generators, retailers and C&I customers alike, all seek to fulfil their wholesale demand and/or supply requirements via a range of different mechanisms, all of which are closely interrelated, and are substitutable (i.e., hedge contracts are substitutable for spot trading, customer load shifting and building new generation). Accordingly, the national wholesale electricity market should be defined as to include interactions between each of these wholesale market participants irrespective of the contractual mechanism adopted.

Different types of generation fall within the same market

17.5 Different types of generation, such as renewable (wind, hydro, geothermal and solar) and non-renewable (fossil fuel based e.g., thermal) generation have different characteristics. For example, some (such as wind and solar) are intermittent, with operators having little control over when they operate. Others, such as geothermal run at relatively constant rates of output with limited ability to alter generation volumes between seasons. Run of river hydro sits somewhere between the two, with output largely dependent on inflows of water, but some short-term flexibility. On the other hand, flexible hydro and traditional thermal generation can be ramped up and down to match demand (either on a short- or medium-term basis depending on the nature of the generation).

17.6 However, all generation types fall within the same market. At all times, generation operators are interacting through the market to ensure there is sufficient supply to cover electricity demand. Again, the critical feature of the market is the physical supply and demand of electricity, which involves interaction between all different types of electricity generation.

18. Temporal aspects of national electricity market

18.1 It is not necessary to assess separate markets in respect of the temporal dimension of the wholesale electricity market (e.g., summer supply vs winter supply, peak vs off-peak). Again, while the electricity market will exhibit different characteristics at different points of time, the same market mechanisms apply – the buyers and sellers will interact to ensure physical demand and supply are balanced.

18.2 Furthermore, there is substantial interplay between time periods. For example, hydro generators with storage lakes can retain water during periods of low demand and use this to generate more electricity during periods of higher demand. Over the longer term, thermal or intermittent renewable electricity can be used to "recharge" water storage in hydro schemes to cover periods of higher demand/lower hydrology. There is no sensible distinction to be made between different time periods given these interactions.

19. Future Development

19.1 Within the national wholesale electricity market, a range of parties compete to develop new generation capacity. Additional capacity from development plans is likely to provide a longer-term

[46] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [45].

constraint on prices.[47] Investment decisions depend on the costs of new generation and the expected revenue from such investments. To that end, new development decisions are closely associated with supply and demand conditions in the national wholesale electricity market. However, to demonstrate why the Transaction does not raise any competition issues in the development of new generation (and, indeed why new development will continue to act as a substantial constraint on the merged entity), the impact of the merger on future developments is assessed separately below.

20. **Geographic market**

Market is national

20.1 Due to the nature of the New Zealand market, it is not necessary to assess separate regional or island-wide markets for electricity generation and wholesale.

20.2 Historically, there have been material constraints or "bottlenecks" in some parts of the Transpower transmission grid. However, over time, Transpower has addressed many of these bottlenecks and continues to invest to upgrade its network. For example, in the Otago area, the Clutha Upper Waitaki Lines Project (**CUWLP**) was introduced to increase capacity on Transpower lines between Clutha and the Upper Waitaki Valley from around 600MW to 1,100MW.[48] The CUWLP has significantly improved supply to and from the lower South Island and reduced the risk of a lower South Island export constraint occurring.

20.3 The Commission has recently approved Transpower's proposed $392.9m investment into its national transmission grid.[49] Transpower has stated its intention to use these funds to future-proof its grid infrastructure against the risks associated with major events, including climate-change related weather events.[50]

20.4 Any remaining transmission constraints are temporary and unpredictable. Accordingly, they are not sufficient to justify finding a regional, rather than national, wholesale electricity market.

No material regions of competitive overlap between the parties

20.5 In any event, if there were bottlenecks or constraints on the Transpower network, for the most part, the Parties' generation assets are highly complementary from a geographic perspective. Accordingly, even if there were limitations affecting the volume of electricity that could flow in or out of a particular region, the Parties would not have any greater combined presence within any such bottleneck area compared to the national market as a whole.

Region	Applicant	Target
Waikato/Bay of Plenty	(*No presence)*	Kaimai (Tauranga) (Hydro) – 42 MW Matahina (Hydro) – 75 MW Wheao & Flaxy (Hydro) – 28 MW
Taupo / Central North Island	Te Mihi (Taupō) (Geothermal)– 166 MW Ohaaki (Geothermal)– 37 MW	Hinemaiaia (Hydro) – 7 MW Kuratau (Hydro) – 6 MW

[47] *Genesis Power Limited And Natural Gas Corporation Holdings Limited*, 2003 Decision No. 490 at [132]. See: https://comcom.govt.nz/__data/assets/pdf_file/0025/73456/Public-Decision-490-Genesis-Power-Natural-Gas-4-Feb-2003.pdf.
[48] https://www.transpower.co.nz/projects/clutha-upper-waitaki-lines-project-cuwlp.
[49] https://comcom.govt.nz/news-and-media/media-releases/2024/commission-approves-nearly-$400m-investment-to-strengthen-grid,-with-transpower-to-provide-timing-assurance-on-cook-strait-cable-spend.
[50] https://www.transpower.co.nz/our-work/industry/our-grid/asset-management.

	Poihipi (Geothermal)– 37 MW[51] Wairakei (Geothermal)– 124 MW Wairakei binary plant (Geothermal) – 14.4 MW Te Huka I & II (Taupō) (Geothermal) – 26.2 MW Te Huka III (Taupō) (online FY25) (Geothermal) – 51 MW Tauhara (Taupō) (in commissioning) (Geothermal) – 174 MW	
Hawkes Bay	Whirinaki (Thermal)– 155 MW	Esk (Hydro) – 4 MW
Taranaki	TCC (CCGT)– currently capable of operating up to 330 MW Stratford Peakers (OCGT) – 2 x 105 MW	Patea (Hydro) – 34 MW Mangorei (Hydro) – 4 MW Motukawa (Hydro) – 5 MW
Manawatu / Wanganui	(*No presence*)	Mangahao (Hydro) – 40 MW
Ruapehu	(*No presence*)	Piriaka (Hydro) – 1 MW Wairere (Hydro) – 4 MW Mokauti (Hydro) – 2 MW
Marlborough	(*No presence*)	Waihopai (Hydro) – 3 MW Branch (Hydro) – 11 MW
Nelson	(*No presence*)	Cobb (Hydro) – 36 MW
West Coast	(*No presence*)	Dillmans (Hydro) – 11 MW Kaniere Forks (Hydro) – 1 MW Arnold (Hydro) – 3 MW Wahapo (Hydro) – 3 MW
Canterbury	Kowhai Park (planned) (Solar) – 150 MW	Highbank (Hydro)[52] – 27 MW Coleridge (Hydro) – 40 MW
Otago	Clyde (Hydro) – 464 MW Roxburgh (Hydro) **–** 320 MW	Waipori (Hydro) – 93 MW (but conveyance limited to 76 MW) Paerau (Hydro) – 12 MW Deep Stream (Hydro) **–** 6 MW

[51] In respect of Ohaaki and Poihipi, these are typical operating MW due to steamfield constraints.
[52] Including Monalto Station.

Northland	(*No presence)*	Bream Bay Power Station – 9 MW ([REDACTED])
Auckland	Glenbrook (Battery) – 100 MW, two-hour duration, due to be complete in early 2026	*(No presence)*

20.6 The table shows some limited overlaps in Otago and Taranaki, however these are not material. In relation to Otago, Transpower's upgrade to the transmission network between Otago and the rest of the South Island (and through to the North Island) has eliminated any relevant constraint that might otherwise have existed, particularly now it is confirmed that the demand load from Tiwai Point will remain. In relation to Taranaki, there is also substantial transmission capacity to the rest of the grid as a result of the previous high prevalence of thermal generation there. In any event, Contact's thermal and Manawa's run of river hydro assets are quite different and would not closely compete even if there were a bottleneck.

Conclusion on geographic market definition

20.7 For the reasons set out above, there are no material differences in market dynamics across different regions in New Zealand. More specifically, the competitive effects of the Transaction will not differ by region. Accordingly, the Parties consider that the wholesale electricity market should be considered on a national basis, consistent with the Commission's previous decisions.

21. Retail market

21.1 In *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, the Commission defined a separate market for the retail supply of electricity to residential and SME customers.[53] Contact considers this approach remains appropriate to assess the Transaction.

21.2 In *Mercury NZ Limited and Trustpower Limited,* the Commission determined that competition in the retail market should be assessed on a regional basis.[54] It acknowledged it had previously defined the retail market as being national, noting that "previous decisions are instructive, but not determinative". The relevant geographical scope of the retail electricity market in this case is national on the basis that retailers generally have a national retail offering.

21.3 There will be no aggregation in the retail market as Manawa no longer has a retail offering to 'mass-market' (residential and SME) consumers. Accordingly, the only potential impact of the Transaction on the retail market is a vertical one. Unlike *Mercury/Trustpower*, there is no prospect that any region would be affected differently by the Transaction. In any event, as the Transaction will not adversely affect competition in retail markets (however defined), there is no need to reach a conclusion on geographic scope of the retail market.

21.4 For completeness, both Contact and Manawa contract with C&I customers. As noted at 15.1(e) above, the supply of wholesale electricity to C&I customers forms a segment of the national wholesale electricity market (i.e., the market in which the generators (sellers) and buyers of wholesale electricity interact to determine the prices and quantities traded).

22. Ancillary services market

22.1 The Parties have minor overlaps in ancillary services, in particular they both provide instantaneous reserves.

[53] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [48].
[54] *Mercury NZ Limited and Trustpower Limited's retail business* [2021] Decision No. 16 at [63].

22.2 The Commission has previously defined a national ancillary services market,[55] which includes instantaneous reserves, frequency keeping, voltage support and black start.[56] The Parties note that the ancillary market is co-optimised with the energy market, as some assets are offered into both and Transpower determines the optimal dispatch across both. Trading in reserves is made necessary to maintain capacity in the electricity system to meet plant failures or demand spikes, and this is either provided by spinning reserves or interruptible load. In the integrated system generators can supply both electricity and (for a price) reserves, and which users can consume electricity and provide (at a price) interruptible load, these two areas are closely interrelated.[57] Accordingly, most wholesale electricity and ancillary services are highly substitutable.[58]

22.3 In any event, the Transaction will not adversely impact competition in relation to ancillary services, however defined. Accordingly, there is no need to reach a conclusion on the ancillary services market definition.

23. Conclusion on relevant markets

23.1 The Parties overlap in the generation of and supply of electricity in New Zealand. Within this market, the Parties also compete (amongst a large number of market participants) to develop new sources of generation, including BESS. Accordingly, this application sets out why the Transaction will not have any adverse effect on competition in the national electricity generation and wholesaling market, and also sets out why the Transaction will not have any adverse effect on the development of new generation.

23.2 While Manawa is not active in the retail market, this application also sets out why the Transaction will not have any adverse effect on competition in the national retail market. Similarly, we set out why the Transaction will not have any adverse effect on ancillary services.

[55] See example, *Genesis Power Limited and Natural Gas Corporation Holdings Limited* (2003) Decision No. 490 at [44].
[56] *Genesis Power Limited and Natural Gas Corporation Holdings Limited*, Decision 490 (4 February 2003) at [31].
[57] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [35].
[58] The only ancillary services which are not substitutable are some demand flexibility products that can only be offered into the ancillary market, but this is a minor proportion of ancillary services.

Part G: Transaction will not substantially lessen competition in the market

24. **Introduction**

24.1 The Commission can be satisfied that the Transaction will not have the effect, or likely effect, of substantially lessening competition in the national wholesale electricity (or any other) market because:

(a) the Transaction only results in a small market share uplift (with Manawa accounting for around 4.3% of electricity generated in New Zealand) and the merged entity will continue to face strong and increasing competition from well-resourced generator competitors;

(b) the Transaction will not adversely impact competition in spot trading. Contact's conduct in spot trading will continue to be constrained by a number of factors, primarily its major competitors, the impact of spot prices on its contractual position, the must-run nature of much of its generation portfolio and the role of the EA in regulating market conduct;

(c) the Transaction is expected to increase the liquidity of Fixed Price Contracts due to the complementarities of the portfolios. This will increase Contact's competitiveness in C&I sales, making this market segment more competitive overall, and incentivise it to offer more contracted sales, particularly longer-term sales, to other parties (including independent retailers);

(d) the Transaction does not materially increase concentration of electricity assets with long-term flexibility as this is a small part of both portfolios (particularly as thermal generation is retired). Most of the hydro assets in Contact's and Manawa's portfolios are run of river with limited storage;

(e) the Transaction will not adversely affect the retail market. Manawa is not active in the retail supply of electricity to mass-market customers in New Zealand and therefore there is no overlap in this market. Contact will continue to supply electricity to other retailers on the same terms as it does for itself, but with the volume of Fixed Price Contracts increasing. This will improve opportunities for independent retailers to insulate themselves from spot trading risks, with the potential to improve retail competition;

(f) the Transaction will create a stronger competitive landscape for the energy transition. This is because the positive portfolio effects will result in greater certainty for the merged entity to undertake renewables projects in the future and Contact will be in a stronger financial position to execute on the combined entity's development pipeline; and

(g) there is no adverse effect on ancillary services as the combined entity will continue to be constrained by other generators, providers of demand-side response services and, increasingly, owners of BESS.

25. **Small increment in market share**

25.1 Set out in the table below are estimated market shares, based on electricity generation volumes for the market for the supply of wholesale electricity in New Zealand.

25.2 The Applicant has assessed market shares using generation volumes. This is industry standard for assessing market shares in the national wholesale electricity market because different types of generation have different capacity factors. For example, a 100 MW solar farm with a 20% capacity factor (i.e., producing on average 20% of its capacity over time) would produce about 175 GWh per year, but a 100 MW geothermal plant with a 95% capacity factor would produce about 830 GWh per year, or almost five times as much. Contact also consistently refers to generation volumes in its publications as the relevant measure (e.g. its Integrated Report). However, for completeness, the Applicant has also provided shares based on nameplate capacity in the below table.

25.3 The market shares demonstrate that Manawa is a small player in the national wholesale electricity market. The market share increment post-transaction is minor, resulting in an increase of ~4.3% on the basis of generation volumes.

Figure 9: Market shares in National Wholesale Electricity Market (Financial Years FY22-FY24):[59]

Market Player	Market Share			Annual Generation (TWh)		
	FY24	FY23	FY22	FY24	FY23	FY22
Meridian	32.2%	33.7%	33.4%	13.56	13.91	13.53
Mercury[60]	23.2%	24.5%	21.5%	9.77	10.10	8.70
Contact	20.5%	18.4%	20.6%	8.62	7.60	8.33
Genesis	14.1%	14.2%	16.0%	5.95	5.87	6.47
Manawa	4.3%	4.9%	4.3%	1.80	2.03	1.75
Nova	1.7%	0.9%	1.6%	0.70	0.39	0.65
Other	4.0%	3.2%	2.5%	1.70	1.34	1.03
Total	**100%**	**100%**	**100%**	**42.1 TWh**	**41.2 TWh**	**40.5 TWh**

Market Player	Market Share	Annual Generation (TWh)
Contact & Manawa (based on FY24 figures)	**24.8%**	**10.42**

Figure 10: Market shares in National Wholesale Electricity Market (end of FY24) (MW Capacity): [61]

Market Player	Thermal	Hydro	Intermittent	Geothermal	BESS	Total (all)	Share
Manawa[62]	6	498	0	0	0	504	4.9%
Contact[63]	695	784	0	577	0	2056	20.0%
Genesis	1188	687	0	0	0	1875	18.2%
Meridian	0	2377	608	0	0	2985	29.0%

[59] Source: EMI and company data. Data is from financial years ending June. Due to Manawa's financial year ending in March, the annual figures presented will differ from Manawa's annual reports.
[60] Market shares for Mercury includes all its generation from its geothermal joint-ventures.
[61] Data has been sourced from https://www.emi.ea.govt.nz/Wholesale/Datasets/Generation/GenerationFleet/Existing, with modifications to reflect additional plant commissioned in FY24.
[62] Includes King Country Energy (Manawa is a 75% shareholder).
[63] Tauhara has been included at 152MW, and TCC is included at 330MW. It is expected that TCC will be decommissioned at the end of December 2024.

Market Player	Thermal	Hydro	Intermittent	Geothermal	BESS	Total (all)	Share
Mercury[64]	0	1106	600	488	0	2194	21.3%
Nova	293	0	0	0	0	293	2.8%
Other	68	59	105	112	35	379	3.7%
Total (by type)	**2250**	**5511**	**1313**	**1177**	**35**	**10286**	**100%**

25.4 As can be seen from Figure 9 above, the merged entity at a combined 24.8% market share (at FY24) will continue to face strong competition from well-resourced generator competitors, including Meridian (with a higher market share than the combined entity, at 32.2%), Mercury (with a similar market share at 23.2%) and Genesis (at 14.1%). Independent generators (including Nova, Pioneer Generation, Ngawha and Eastland Geothermal), which make up 5.7% of the market will continue to compete with the merged entity following the Transaction. In addition, other generation sources will continue to increase as new capacity from renewables comes onstream with increasing frequency from both existing, local suppliers and large international developers.

Concentration indicators

25.5 While the three largest firms in the market have a combined market share of greater than 70%, there is only a minor uplift in Contact's market share from 20.5% to 24.8% based on generation volumes. Accordingly, the Transaction will not materially affect the level of market concentration. This application sets out in further detail below why the Transaction will not give rise to anticompetitive effects.

More generation is coming

25.6 The New Zealand wholesale electricity market is expected to become increasingly competitive as electrification continues. As set out above, Transpower estimates that a 68% increase in electricity generation is required by 2050 to meet increases in demand.[65] This significant demand growth forecast is driven by several factors, including the rise of electric vehicles, increased process heat needs, onshoring of data storage, heavy transport, aviation, marine applications, green chemicals, and overall population growth.

25.7 International evidence suggests, and the EA has recognised, that this demand is likely to be met, at least in part, by domestic and international new entrants.[66] As set out in **Appendix 19**, several electricity generators have recently entered or expanded their operations in New Zealand. For

[64] Mercury's geothermal capacity includes all capacity from their geothermal joint-ventures. Data from https://www.emi.ea.govt.nz/Wholesale/Datasets/Generation/GenerationFleet/Existing

[65] Whakamana I te Mauri Hiko. Available at: https://static.transpower.co.nz/public/publications/resources/TP%20Whakamana%20i%20Te%20Mauri%20Hiko.pdf?VersionId=FljQmfxCk6MZ9mIvpNws63xFEBXwhX7f at 9.

[66] https://www.ea.govt.nz/documents/4335/Appendix_A2_-_Final_recommendations_report.pdf at [4.41].

example, SolarZero[67], Harmony Energy, Helios Energy[68], Ranui Generation[69] and Lodestone Energy[70] have recently invested in renewable electricity projects in New Zealand. Further, New Zealand Green Investment Finance (a Crown entity) have announced a deal with Far North Solar Farm to invest $78 million to facilitate grid connection infrastructure, which will allow an additional maximum generation capacity of 1132MW to be connected to the grid.[71] Further, the Ranui investment comes off of the back of New Zealand Green Investment Finance's effort to raise international investment in solar projects, totalling $365 million available for medium to long term solar projects.[72]

25.8 Additionally, several large, well-resourced global electricity generators are well positioned to enter the New Zealand industry. By way of example, BlueFloat Energy has announced plans for offshore wind projects up to 1.4GW in South Auckland and West Waikato[73], and is also looking to build a 900MW, 65-turbine, offshore wind farm in the South Taranaki Bight.[74] Oceanex Energy is planning up to three 1GW offshore wind farms, with 1GW each in Taranaki, Waikato and the Cook Strait.[75] Additionally, NZ Superfund and Copenhagen Infrastructure Partners are exploring the development of large-scale offshore wind generation in the South Taranaki Bight.[76]

25.9 Further, large Australian businesses have identified New Zealand as a "renewables powerhouse" suitable for major wind, solar and storage projects following the introduction of the Fast-track Approvals Bill, as well as its readily available land and steadier climate.[77]

25.10 Australia provides an example of the new entry (particularly in intermittent renewables and batteries) in recent years as electricity demand increases.[78] Between 2020 and 2022, about 60% of new registered capacity in Australia was developed by players other than the four largest

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[67] SolarZero has a network of more than 10,000 solar and battery units. This virtual power plant had the capacity to supply up to 26.5MW to the grid when it was tested in relation to its capacity to support a grid emergency. The Electricity Authority and Transpower deemed this to be significant. This is a nascent area which is likely to grow substantially over time as technology advances, allowing for much greater flexibility in the power system. See: https://newsroom.co.nz/2024/02/27/solar-virtual-power-plant-a-vision-of-a-future-zero-carbon-grid/.

[68] Helios Energy is a collaboration between renewable energy developers from the United States and New Zealand, who have built a New Zealand company committed to grid-scale solar developments. Helios has been developing a pipeline of approximately 1GW of grid-connected solar developments since 2020. In September 2023 it confirmed that it is seeking resource consent for a 300MW solar farm on the Maniototo Plain. It also has three other projects ongoing. See: https://heliosenergy.co.nz/news/media-release-21-september-2023 and https://heliosenergy.co.nz/projects/.

[69] Ranui Generation is a solar development company that provides ready to build solar sites that are connected to the grid to supply New Zealanders with electricity. It currently has four projects in its development pipeline, with on-site works having recently commenced on their first, Twins River in Kaitaia. Ranui was quired by Singapore fund manager SC Oscar in mid-2024 (https://businessdesk.co.nz/article/news-in-brief/singapore-fund-manager-buys-solar-generator-ranui-generation). Its other generation sites are located in Taranaki and Central Hawkes Bay, which have not yet commenced development, but are expected to have 38MW, 40MW and 55MW or generation capacity, respectively. See: https://ranuigen.co.nz/projects/.

[70] Lodestone Energy is solar generation company which is actively investing in solar projects. Its first development projects cover five farms across the North Island, including Kohirā which is located in Kaitaia. This is the largest solar farm in New Zealand to date, generating 57GWh annually and with a capacity of 33MW. Lodestone has also recently completed an equity capital raise of $55 million , which is going to be used to finance the pre-construction activities of its second phase of agri-volaic solar farms. Lodestone's Phase 1 and 2 combined, which consists of 12 solar farms in total, is estimated to represent about 2 per cent of New Zealand's total electricity market. See: https://lodestoneenergy.co.nz/lodestone-energy-starts-generating-power-at-new-zealands-first-utility-scale-solar-farm/ and https://www.energetica-india.net/news/trina-solar-completes-kohira-solar-farm-with-lodestone-energy-in-new-zealand. See also: https://www.nzherald.co.nz/business/solar-firm-lodestone-energy-completes-55-million-capital-raise/LZTEWHDRM5GURMLPDBQK4LGSVU/.

[71] https://www.nzgif.co.nz/news-and-events/78m-finance-facility-to-accelerate-solar-development.

[72] https://www.nzgif.co.nz/news-and-events/nzgif-raises-more-international-finance-for-solar-energy-totalling-365m.

[73] https://www.bluefloat.com/major-investment-planned-to-develop-south-auckland-waikato-offshore-wind-industry/.

[74] https://www.bluefloat.com/project/south-taranaki/.

[75] https://oceanexenergy.com/projects/new-zealand-offshore-wind-farm/.

[76] https://nzsuperfund.nz/news-and-media/nz-super-fund-and-copenhagen-infrastructure-partners-to-explore-development-of-offshore-wind-energy-in-aotearoa-new-zealand/.
See also: https://www.nzherald.co.nz/business/danish-renewables-developer-shifts-offshore-focus-to-waikato/WUIV5FPDAREIFI7WFBANTKQ3OM/ and https://www.venture.org.nz/assets/Uploads/Venture-Taranaki/National-Impacts-Report-New-Zealand-Offshore-Wind-Industry-20-March-2024.pdf.

[77] https://www.nzherald.co.nz/the-country/news/renewable-energy-australia-sizing-new-zealand-up-for-new-projects-rok-solid-boss/BX5UT2JCTBGAHERVJ3O7N4GJWY/
According to Australian renewable energy land acquisition agency, Rok Solid. Rok Solid has secured $68M worth of land for over 50 renewable projects across Australia and New Zealand since it was established in 2020. See: https://www.roksolid.au/.

[78] https://www.aer.gov.au/system/files/Wholesale%20electricity%20market%20performance%20report%20-%20December%202022_0.pdf at p 89.

industry participants[79] and new entry is expected to increase across the rest of 2024.[80] Recent examples of new entry in Australia include projects owned by a number of well-resourced international players, such as the MacIntyre Project[81] and Golden Plains Wind Farm.[82] Other significant investors in generation in Australia include French energy producers, Neoen[83] and Engie.[84]

25.11 Accordingly, in addition to New Zealand's existing development pipeline, the gentailers are likely to face increasing competition from large global players which can leverage their existing experience and expertise to enter the New Zealand electricity industry.

26. No anti-competitive effect in spot trading

Introduction

26.1 Contact's conduct in spot trading is constrained by several factors, primarily its major competitors being Genesis, Meridian and Mercury, the impact of spot prices on its contractual position and the role of the EA in regulating market conduct.

26.2 By contrast, Contact does not see Manawa as a material constraint on its conduct in spot trading currently and does not expect this to change in the counterfactual. Manawa is typically seen as a price-taker, in that its generation offered does not generally set the spot price.

Previous commentary from the Commission

26.3 The Commission has previously considered the impact of concentration in generation capacity on spot trading conduct. Importantly, it noted:

- *the ability to engage in this type of strategic behaviour can be limited if the output of the generation plant is inflexible.*[85]
- *A generator's ability to game the spot market may also be affected by the flexibility of its plant, its ability to generate at times of peak demand, and by new entry.*[86]

26.4 Specifically in regard to Contact, the Commission has previously noted:

- *The period of peak electricity demand tends to correspond with the period when Contact's ability to generate at its hydro stations is at its lowest.*[87]
- *Overall, the Commission has concluded that given the hedge position of Contact, the composition of its hedge book, the nature of its generation portfolio and medium to longer-term commercial drivers to contract up to high levels, the acquisition of TCC would*

[79] https://www.aer.gov.au/system/files/Wholesale%20electricity%20market%20performance%20report%20-%20December%202022_0.pdf at p 31.
[80] https://www.aer.gov.au/system/files/2024-07/Q2%202024%20Wholesale%20markets%20quarterly%20report_0.pdf at p 16.
[81] https://www.acciona.com.au/projects/macintyre-wind-farm/
This is the largest approved wind farm in the Southern Hemisphere and is expected to be operational in 2024. It is owned by global leader in sustainable solutions for infrastructure and renewable energy projects, Acciona. The project is jointly owned by government owned energy company, CleanCo, which was established in 2018. Acciona has already entered the New Zealand market through its transport infrastructure solutions business. See: https://www.acciona.com/projects/oceania/?_adin=11734293023.
[82] https://goldenplainswindfarm.com.au/.
This is one of the largest windfarms globally and is expected to be operational in 2025. It is jointly owned by global clean energy enterprise, TagEnergy and Netherands based holding company, Ingka Group. Since its formation in 2019, TagEnergy has established a portfolio of more than 6GW in the UK, Australia, Spain, Portugal and France. See: https://tag-en.com/about/.
[83] https://australia.neoen.com/en/.
[84] https://engie.com.au/.
[85] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [85].
[86] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [103].
[87] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [104].

> *be unlikely to lead to a significant change in Contact's ability or incentive to game the spot market.*[88]

26.5 While those statements were made in 2003, Contact agrees with the above statements and considers that they remain equally applicable today.

Generators may have the ability to increase spot prices when they are "pivotal"

26.6 The EA has previously directed its focus to whether a party is "gross pivotal" in considering whether that party has the ability to increase prices in any trading period. A supplier is "gross pivotal" if demand in a trading period would not be able to be met without its supply.[89]

26.7 A gross pivotal supplier can unilaterally raise spot prices[90] by limiting electricity supply to the market (e.g., by artificially increasing its offer prices or limiting the capacity of its generation offered to the market).

26.8 A generator will be net pivotal when it has both the *ability* and the *incentive* to raise prices in spot trading, i.e.:

(a) it has the ability / opportunity to raise prices if it is the gross pivotal generator (its marginal offer sets the price); and

(b) it has the incentive to raise prices where its energy supply via spot trading exceeds the quantity it needs to purchase as spot trades to meet its customers' demand (such that it would gain a net benefit from increasing spot prices).

26.9 In other words, if a gross pivotal generator's production (including contracted purchases) exceeds its sales commitments (such that it is a net seller via spot trades), it would be considered net pivotal as it could, in theory, derive a benefit from raising the spot price.

26.10 This is consistent with the Commission's prior analysis that, even if a generator is gross pivotal and could affect prices, it often does not have the incentive to do so:

> *In general a generator whose fixed-price contracts closely match its generation would not have a strong short-term incentive to engage in strategic behaviour to force up spot prices (i.e. to "game the market".) The generator could, of course, decide to reduce its contract position over time to increase its ability to benefit from spot market manipulation. However such a strategy would carry some risk as it could be undermined at least in part by the competitive response of other generators, unpredictable changes in market circumstances and so on.* [91]

26.11 However, the EA has also identified that a gross pivotal supplier who is not net pivotal may, in very limited circumstances, have a long-term incentive to influence spot prices to directly influence the price it receives in future for its hedges and from retail customers.[92] This would require a generator to be gross pivotal for a significant portion of the year to create a trend that could influence forward prices. This gross pivotal supplier (who is not also net pivotal) would still need to buy from the spot market during the period where the prices are elevated. In that scenario, the supplier's financial gain from selling higher priced forward contracts would need to outweigh the impact of having to buy at higher spot prices. As set out below, this is not the case for Contact now or post-Transaction.

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[88] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [105].
[89] https://www.ea.govt.nz/documents/2243/Promoting-competition-in-the-wholesale-electricity-market.pdf at [2.13].
[90] https://www.ea.govt.nz/documents/2243/Promoting-competition-in-the-wholesale-electricity-market.pdf at [2.7]. See also: https://www.ea.govt.nz/documents/2450/Consultation-paper-Trading-conduct-v4.pdf at [D.8].
[91] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491, at [102].
[92] https://www.ea.govt.nz/documents/2450/Consultation-paper-Trading-conduct-v4.pdf at [D.9].

There are limited periods where the combined entity would be gross pivotal

26.12 To assess the potential impact of the Transaction on spot trading Contact commissioned Concept Consulting to assess how often Contact would be pivotal following the Transaction. Concept's analysis applies the same methodology it has used for prior gross pivotal analysis undertaken for the Electricity Authority. It takes actual prior year market data and re runs a virtual version of the dispatch model, but with the assets of the relevant company removed to see how often the market fails to solve. If the market doesn't solve that means the assets are needed, and the company is gross pivotal. Concept's report is provided as Appendix 2.

26.13 While Concept's analysis presents the overall gross pivotal positions, it also assesses the gross pivotal status on flexible assets only (i.e. it does not remove must-run assets, and therefore only assess the impact of removing flexible assets from the market[93]). As set out above, the Commission has previously recognised that the ability for market participants to engage in strategic behaviour through their involvement in the wholesale market relies on having flexibility in their portfolio.

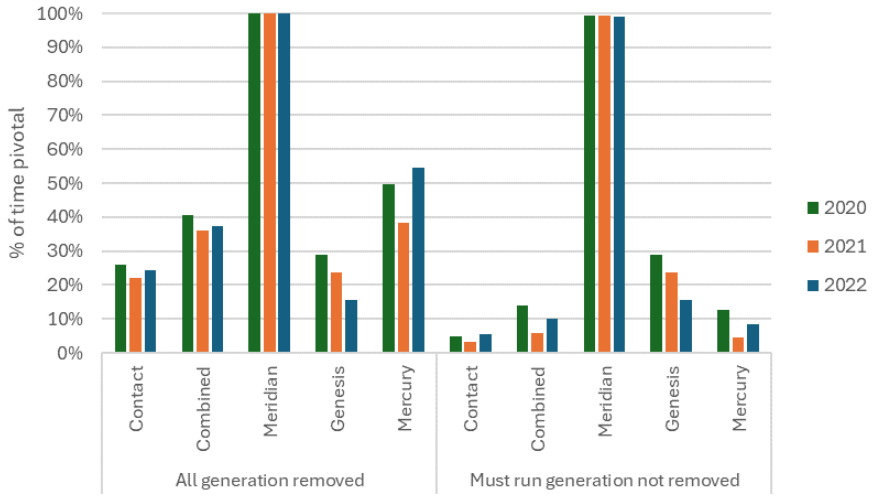
26.14 Generators with flexible generation can retain water or fuel during periods of low prices and use this to generate more electricity during periods of higher demand. In contrast, generators with less flexible portfolios do not have the same ability to retain water or fuel during these periods. Accordingly, any attempt to limit supply by a generator with limited flexibility would likely require the relevant party to unnecessarily spill excess water, steam or other fuel from its generating plant/s. Not only would this mean lost generation revenue, it would also mean that this strategic behaviour would be easily detectable by the Electricity Authority's monitoring of trading conduct, as set out further below.

26.15 With only ~500MW of total capacity, most of which is run-of-river hydro, or hydro with short-term storage, Manawa is largely a price-taker in the market, and has limited ability to set the price. Moreover, Manawa's market share in terms of both energy and capacity is about 4.3%, so it has not been included as a standalone participant in Concept's analysis.

26.16 The analysis is presented in Figure 11 below, and shows that on its flexible assets (the analysis where must run assets are not removed), Contact would be gross pivotal slightly less than 5% of the time in the counterfactual and gross pivotal about 10% of the time following the Transaction. That means the combined entity is gross pivotal on its flexible assets about as often as Mercury, less often than Genesis in all years, and significantly less than Meridian in all years.

[93] For this analysis assets treated as must-run are: all wind, all geothermal, some hydro, comprising: 105MW at Contact's Roxburgh station, 24.5MW at Meridian's Manapouri station, 31MW at Meridian's Waitaki station, 15MW at Mercury's Aratiatia station, and 39MW at Mercury's Karapiro station. This reflects a conservative approach as set out further below.

Figure 11: Gross pivotal durations 2020-2022



26.17 The simplifications necessary in this analysis have over-stated the portion of time that Contact is gross-pivotal on its flexible assets. This analysis does not account for the must run component of Clyde Dam which has minimum flows of around 70MW, but which is complex to account for because the requirements change for different times of the day and different seasons. It also does not take account of any minimum flow requirements on Manawa's hydro assets, but on the other hand does not count Manawa's embedded plants (which are harder to measure, but also have limited flexibility). On balance, the results are conservative and the actual proportion of time for which the combined entity will be gross pivotal will be less.

26.18 Finally, the instances when the combined entity will be gross pivotal on flexible assets will significantly reduce with the shift away from thermal generation (beyond the retirement of TCC, which is accounted for in the Concept analysis). Contact uses its thermal generation (i.e., its Stratford Peaker and Whirinaki plants) to hedge supply-side risk (e.g., low hydro levels and unplanned plant outages) through storing gas and diesel respectively. As Contact's thermal generation is retired, this flexibility will eventually be lost.

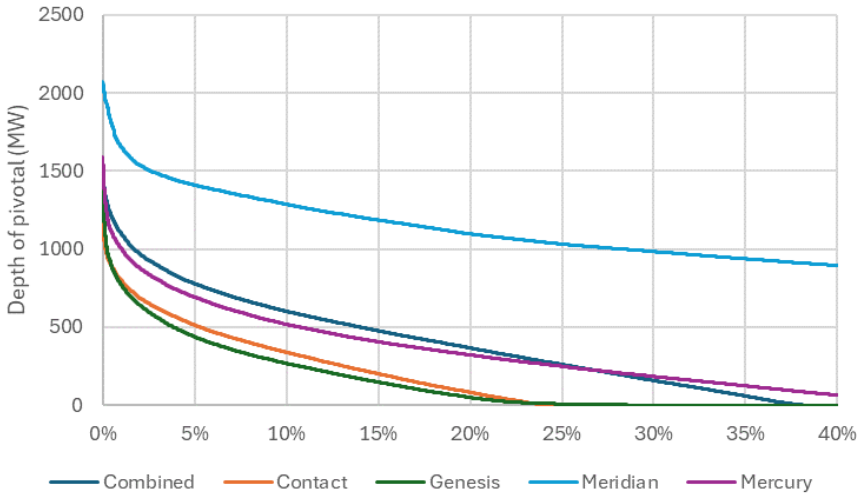
The combined entity would have no incentive to increase prices when it is gross pivotal

26.19 Gross pivotal is a simple measure of the instances when some of a generator's output is necessary to meet market demand. However, it is very rare for the market to require every MW of a generator's output. If output was reduced by a small amount, then there is usually sufficient capacity offered by other generators for this to have no impact on the ability for the market to meet demand, or impact on spot prices.

26.20 Concept Consulting considers this idea in its report by looking at 'pivotal depth'. This measures the volume of output that is needed from a generator to meet market demand. For example, the combined entity has total generation capacity of over 2,500MW, but in over 86% of the period assessed it is gross pivotal, with less than 500MW of its output. This shows that even in the limited instances where the combined entity is gross pivotal, it would have no incentive to raise prices in spot trading (i.e., it would not be net-pivotal).

26.21 Pivotal depth is presented in the figure below. It shows the amount of generation that is needed from the major generators and the combined entity to meet market demand, with the horizontal axis showing the percentage of trading periods.

Figure 12: Gross pivotal depth (all generation removed), average 2020-2022



26.22 This figure shows that even in the limited cases where the combined entity would be gross pivotal it would need to shed a significant volume of output to take advantage of these situations. For example, in about 98% of trading periods, at most 1,000MW of the combined entity's generation is required to meet market demand. To take advantage of this, the combined entity would need to make sure that more than half (at least 1,500MW) of its 2,500MW total capacity is not dispatched, such that market demand is not met.

26.23 It would not be feasible for the combined entity to cut output by such large numbers because:

(a) reducing output by such large volumes would substantially reduce revenue;

(b) Contact would likely be unable to meet its contractually committed volumes. In other words, Contact would not be "net pivotal". If it were to reduce output below its committed volumes it must buy additional volume off the spot market to meet its commitments, such that inflated prices would be a cost to Contact, not a benefit, removing any incentive to increase spot prices in the first instance;

(c) as set out in figure 11, in many cases it will not be possible for the combined entity to reduce output sufficiently to influence prices given its large volume of must-run generation; and

(d) as set out below, such a change in output would reflect a breach of trading conduct rules, which would be easily detectable by the EA's market monitoring regime.

Trading conduct rules

26.24 The Electricity Industry Participation Code 2010 (the **Code**) provides an additional market protection against the ability to exercise market power in the wholesale electricity market.

26.25 The High Standard of Trading Conduct (**HSOTC**) provision, set out in Clause 13.5A of the Code, regulates conduct in relation to generators' offers and reserve offers into the market. Under the provision, an offer submitted or revised by a generator must be consistent with the offer that the generator, acting rationally, would have made if no generator could exercise significant market power at the relevant time. The HSOTC provision is monitored closely by the EA, and acts as an ongoing check on the potential exercise of market power in the wholesale electricity market. Accordingly, the HSOTC provision provides an additional restriction on the merged entity's ability to exercise market power in the limited instances this ability could exist. This restriction exists in both the factual and the counterfactual.

Third parties' ability to report instances of breach

26.26 Part 5 of the Code provides that the EA may investigate and take action to correct undesirable trading situations (**UTS**).[94] A UTS is any situation that threatens the confidence in or the integrity of the wholesale electricity market and that cannot be resolved under any other provision under the Code.[95] Examples of situations which may constitute a UTS are manipulative or attempted manipulative trading activity, trading conduct that is misleading or deceptive, situations that threaten orderly trading or proper settlement and exceptional or unforeseen circumstances that are contrary to the public interest.[96] Any party may report a possible UTS, and the EA investigates all UTS reported.[97] Accordingly, the UTS provisions provide an additional regulatory check on the merged entity's ability to exercise market power in the rare instance this could exist.

26.27 Furthermore, any spillage of generation by a generator is constantly monitored by the EA and is easily detectable by third parties, which have the ability to report instances of a breach of the HSOTC and/or UTS provisions to the EA. Industry participants have an obligation to report potential breaches of the Code to the EA under Clauses 7 and 8 of the Electricity Industry (Enforcement) Regulations 2010 (**Enforcement Regulations**).[98] Similarly, the EA is required to follow a process to assess alleged breaches in accordance with the Enforcement Regulations.[99]

27. **The Transaction will increase the volume of Fixed Price Contracts in the market**

27.1 As detailed above, Contact's key rationale for entering into this Transaction is the portfolio benefits that arise because of the complementarities of the two portfolios. This means Contact can enter into more Fixed Price Contracts because of the increased certainty of generation output throughout the year.

27.2 Fixed Price Contracts are those where the price is agreed upfront, providing greater certainty to counterparties. They are common types of contracts sold to retail and C&I customers (usually in the form of fixed price, variable volume (FPVV) contracts), as well as fixed price hedge contracts sold to other generator-retailers and independent retailers seeking to minimise their spot market exposure.

27.3 Selling Fixed Price Contracts helps Contact reduce its spot exposure and provides revenue certainty, and is consistent with Contact's past behaviour. While this reduced portfolio risk will benefit the merged entity, it will also benefit the market as a whole as any internal contracting post-Transaction will reduce demand from the merged entity, freeing up contract availability for others. In particular, increased volume of Fixed Price Contracts in the market will allow retailers and C&I customers to have improved certainty of their own purchase position to support and grow their customer numbers or electricity consumption, ultimately resulting in improved competition in downstream markets.

Portfolio synergies will increase the volume of Fixed Price Contracts Contact can enter into

27.4 When determining the volume of Fixed Price Contracts sales generators need to take into account potential risks to generation output. This includes considering the availability of water, natural gas and other fuels, as well as plant outages, and transmission constraints. The more certainty generators have around these factors, the more volume they can sell.

27.5 As set out in detail above, without the Transaction, these portfolio risks are significantly higher for Contact due to the uncertain output of the Clutha hydro scheme, the summer weighting of the Clutha, and the reduced ability to compensate for South Island dry years following the expected closure of TCC and dwindling gas supply. This is particularly the case for retail shaped demand,

[94] Electricity Industry Participation Code 2010, Part 5.
[95] Electricity Industry Participation Code 2010, at Clause 1.1(1).
[96] Electricity Industry Participation Code 2010, at Clause 5.1(2).
[97] https://www.ea.govt.nz/industry/wholesale/uts/.
[98] https://www.legislation.govt.nz/regulation/public/2010/0362/latest/DLM3285301.html.
[99] https://www.ea.govt.nz/code-and-compliance/report-a-breach/#:~:text=We%20receive%20a%20report%20of,overall%20impact%20of%20the%20breach.

which increases winter load and exposure. If Contact were to sell Fixed Price Contracts equal to its total expected generation, it could be caught short if actual output is lower than expected. It would then need to buy at spot prices (which are typically elevated during a dry year) and risk a potentially significant loss.

27.6 As set out in the rationale section above, the Transaction will reduce portfolio risks due to the complementarities between the Contact and Manawa assets. Contact's largest risk (and therefore greatest limitation on the volume of Fixed Price Contracts it is able to offer) is the risk of a South Island dry year, which results in low hydro inflows into its Clutha catchment and lower than average generation, particularly during the periods of high electricity demand (winter and autumn). Manawa has a diverse portfolio of hydro assets that benefit from water inflows that allow for above average generation in winter. Historically, Manawa's winter weighting usually offers higher levels of generation during Contact's periods of low generation. Accordingly, Contact will have a more secure supply of energy. Furthermore, the Transaction is expected to result in overall diversification benefits owing to geographic spread (catchment), plant size/type and the nature of the parties' assets more generally.

27.7 The Frontier Report attached as Appendix 1 demonstrates the benefits to Contact and to the market that the Transaction enables by reducing Contact's overall portfolio risk. Frontier focusses on the degree to which the portfolio complementarities reduce the likely impact of a South Island dry year on the combined hydro portfolio. It uses historical data to undertake a quarter-by-quarter analysis to assess the hydro output the combined entity could be certain of. It shows that if the combined entity were only willing to enter into Fixed Price Contracts when it could be at least 90-95% sure it can meet those commitments, then it could offer approximately 200-300GWh more Fixed Price Contracts per year from its hydro portfolio than the two companies separately. Contact considers a 90% to 95% confidence level is a reasonable proxy for its level of contracting risk for the purposes of the modelling undertaken.[100]

27.8 Frontier's analysis does not take account of Contact's thermal assets, consistent with Contact's view that these assets face decreasing volumes and certainty of fuel supply and will ultimately exit the market as the sector decarbonises. However, it should also be noted that as Contact's thermal assets are retired it will have to take an increasingly conservative risk position on its hydro output as it will have less thermal generation to act as back-up supply. In that case the synergies will be closer to the top of the 200-300GWh range, or even above.

27.9 There will also be further upsides to the complementarities between the two portfolios not investigated by the Frontier analysis. For example, Frontier's work does not consider the different seasonal shape of the two portfolios that results in a more stable output over the year. It also does not consider the ability to optimise hydro water management across the portfolio more generally, which could provide additional benefits to the market.

Contact is highly motivated to offer more Fixed Price Contracts

27.10 Contact is incentivised to increase the volume of Fixed Price Contracts it offers in order to reduce the risk from being exposed to the spot market. This is consistent with Contact's risk management policies which emphasise stable cashflows to improve confidence of investors and lenders, which will be critical as Contact continues to develop is investment pipeline.

27.11 This incentive was noted by the Commission in its decision relating to the acquisition by Contact of TCC. While this commentary is from 2003, it remains accurate today:[101]

> *Generators have strong incentives to sell a high proportion of their output through contracted sales as they mitigate uncertainty as to price. In particular, it reduces downside-risk in wet years where prices may fall to low levels. Contract sales may be required to satisfy either equity*

[100] It is common in practice for generators to apply specific risk limits that constrain the quantum of contracts that can be offered to the market. These limits are often expressed in terms of percentile or probability terms. For example, a P90/P95 limit indicate that there must be at least a 90% / 95% chance that the actual generation produced will be sufficient to cover the contracted position.
[101] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [107].

> *holders seeking non-volatile returns or creditors. This may be particularly so when generators are seeking debt finance to build new generation plant. Forward sales would tend to reduce the riskiness of investment*.

27.12 The Commission also noted: [102]

> *If Contact engaged in a strategy to reduce the level of contract cover that it offers, Contact would also face the risk that the uncontracted load would face low prices in the spot market…*

27.13 The incentive to offer Fixed Price Contracts is well documented in literature and international evidence. Indeed some of the leading literature on this topic demonstrates that parties are incentivised to sell forward contracts, even though this makes them worse off, and consumers better off.[103]

27.14 Longer term sales are preferable to Contact as they provide longer-term revenue certainty, which will be increasingly important in a volatile market, and to support Contact's investment pipeline. In particular, by adding diversified winter-weighted energy to its portfolio, Contact can offer more year-round Fixed Price Contracts which assists with revenue certainty to support new summer-biased generation investments (such as solar).

Contact's demonstrated behaviour

27.15 Contracted sales (i.e., where electricity is pre-sold via contract rather than spot trading) are critical to Contact's business model. In FY24, [REDACTED]% of Contact's total sales were committed to CFD / ASX hedge, while [REDACTED]% were committed to retail and C&I contracts. Accordingly, [REDACTED]% of Contact's total sales in FY24 were contracted.[104] Contracted sales provide a crucial means to improve revenue stability.

27.16 Contact has and will continue to enter long-term arrangements with other parties to reduce its risk position. For example, [REDACTED]. Additionally, Contact has dealt directly with several independent retailers after they had problems accessing the ASX due to the issues faced by Jarden when Bell Potter decided to exit as a clearer.

27.17 While Contact aims to support requests for hedge contracts where it can, it does not have generation to support every request it receives. This is primarily because Contact must ensure it has sufficient generation for its existing committed volumes in the context of forecasted generation. In particular, Contact must manage its (comparatively limited) hydro storage to increase its ability to supply future contracted volumes and mitigate the risk of overselling contracts.

Regulatory oversight

27.18 There is also a regulatory overlay which governs conduct in the wholesale electricity market, including in respect of participants' hedge contracting decisions.

27.19 Contact is a signatory to the Voluntary Code of Conduct for Participants in New Zealand's Over the Counter Electricity Market (the **Voluntary Code**). This includes providing risk management products on terms and conditions expected in a competitive wholesale electricity market, and supporting entry and participation by other businesses with the necessary capability and capacity to transact in the OTC market.[105] Accordingly, Contact is incentivised to increase/maintain its CFD position to ensure compliance with the Voluntary Code. The transaction will have no impact on this incentive.

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[102] *Contact Energy Limited and Natural Gas Corporation Holdings Limited*, 2003 Decision No. 491 at [111].
[103] One of the founding papers on this topic was Allaz and Vila (1993). Available at https://www.sciencedirect.com/science/article/abs/pii/S002205318371001X.
[104] [REDACTED]
[105] Voluntary Code Of Conduct For Participants in New Zealand's Over the Counter Electricity Market at Clauses 21.1-21.2.

27.20 Since 2010, Contact, alongside the other major generators, has been required to undertake commercial market making services in order to maintain an active market for exchange-traded electricity contracts.[106] This is intended to perform the following key functions:

(a) provide more transparent and robust forward price signals. Participants and other interested parties use the forward price curve that the futures market creates to inform their investment and operational decisions; and

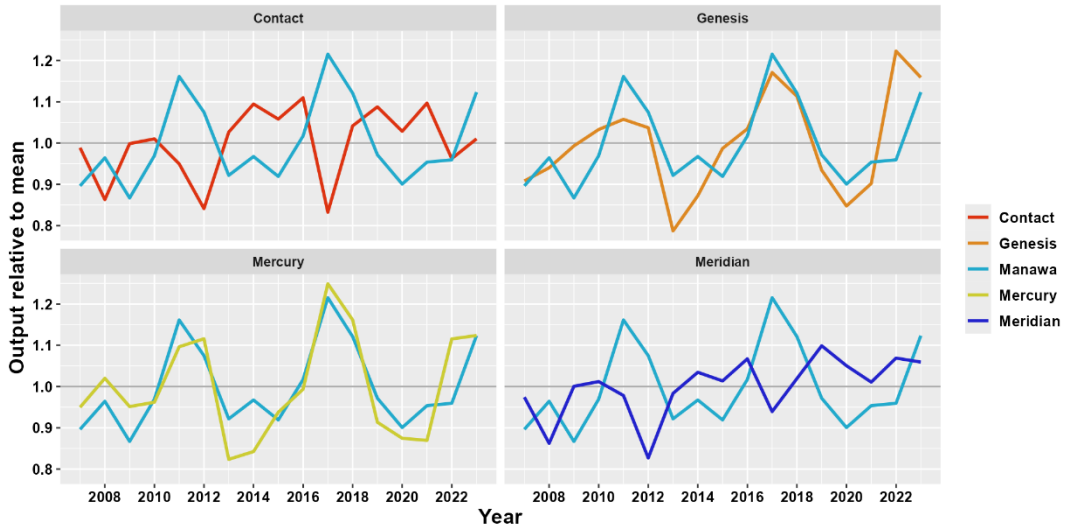
(b) ensure the electricity market is competitive and readily accessible for existing participants and purchasers, as well as for new entrant generators and retailers. Market participants can use it directly and indirectly to manage their spot price risk.

27.21 These market making requirements ensure transparency amongst market participants in relation to ASX trades, and allow all participants to access ASX contracts. The benefits of the ASX market are its relatively easy access, transparency, and liquidity. Typically, ASX baseload contracts are a primary mechanism for non-integrated retailers to secure hedges against exposure to the spot market.

The increase in Fixed Price Contracts will enhance competition

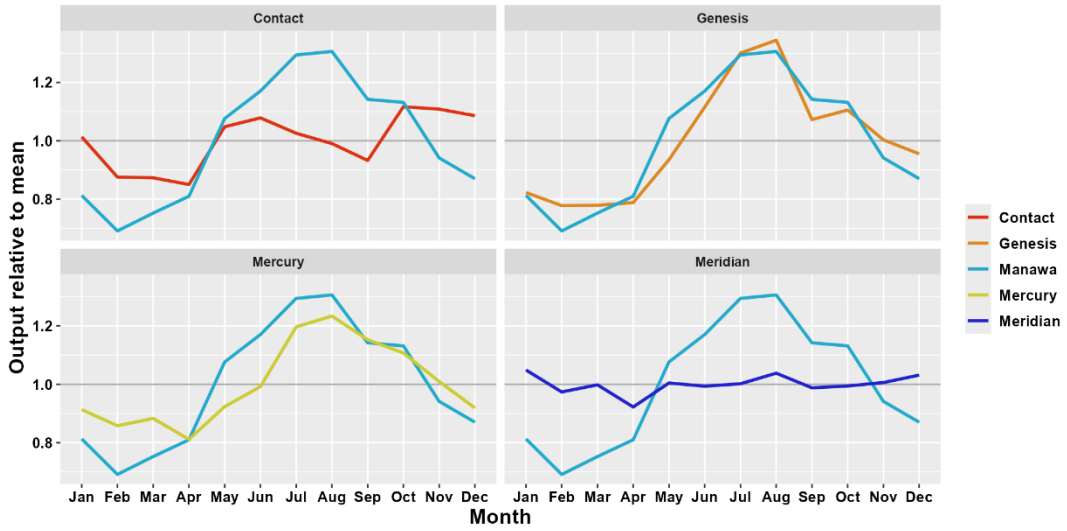
27.22 Contact expects that this Transaction will not only increase the volume of Fixed Price Contracts it can sell, it will also increase the total volume of Fixed Price Contracts available in the market (on a net basis). Contact considers that the same portfolio complementarities cannot be achieved in the counterfactual if Manawa contracts its load to another party. This is demonstrated by the figures below, which show Manawa does not have the same complementarities with Mercury or Genesis.[107] Meridian, with its portfolio of lower South Island hydro, does exhibit some complementarities with Manawa. However, given its vastly greater ability to store water and shift production between time periods, a combination of Meridian and Manawa assets would not bring close to the same benefits as the Contact/Manawa combination (noting in addition that Meridian is already the largest electricity supplier in New Zealand).

Figure 13: Historical shape (annualised)



[106] See https://www.ea.govt.nz/projects/all/cmm/.
[107] EMI and company analysis. Note: Annual references are to calendar years. Monthly data is calculated over the period 2007-2023. Manawa excludes King Country Energy schemes and some very small schemes where continuous data is not available.

Figure 14: Historical shape (monthly)



27.23 This improved liquidity in Fixed Price Contracts will allow retailers and C&I customers to have better certainty of their own purchase position to support and grow their customer numbers or electricity consumption, ultimately resulting in improved competition in downstream markets.[108] 200-300GWh of more Fixed Price Contracts in the market (taking a P90-P95 risk level) would have a material impact. It would be sufficient contracts to cover the demands of about 30,000-40,000 New Zealand homes. This is roughly equivalent to Flick Electric's (one of the fastest growing new electricity retail entrants) total number of customers, or the size of a town like Palmerston North.

27.24 The value of Fixed Price Contracts is highlighted by the winter 2024 energy security crunch. Independent retailers and C&I customers who are fully hedged are insulated from short term elevated spot prices. With more Fixed Price Contracts in the market independent retailers and C&I customers will have more options available to protect themselves against spot trading volatility in the future. Indeed, this point was addressed in the Energy Competition Task Force Terms of Reference, where it was noted that "the transition to renewable generation will make it more difficult to supply hedge contracts; at the same time the associated increase in wholesale cost volatility will increase demand for risk management".

Impact on C&I sales

27.25 This Transaction will enhance the combined entity's ability to compete for C&I customers due to the portfolio complementarities discussed above. As noted in Contact's counterfactual, it has significantly reduced its C&I sales in recent years due to the increased uncertainty in fuel supply to its portfolio, a trend that this Transaction will help to reverse. Contact currently provides fixed priced contracts for around 13% of total C&I demand.[109] Manawa is an even smaller player. While it would continue to offer C&I sales in the counterfactual, it currently only provides fixed price contracts to roughly 1.5% of C&I demand.

28. The Transaction will not materially impact concentration for storage and shaped/firming products

28.1 One of the dynamics of the energy transition will be the increasing importance of flexible generation and demand side flexibility. This is because supply is likely to become more variable

[108] Any additional internal contracting following the Transaction will result in reduced demand from the merged entity, freeing up contracts available to be supplied to others, in quantities greater than before the Transaction.
[109] This figure includes 1050GWh to NZAS, noting this is an assumption based on long term contract volumes excluding demand response (which will change from year to year) and 767GWh of PPAs sold in relation to the Tauhara geothermal station. All of these contracts were provided as long-term hedge contracts, rather than the usual FPVV contracts that most C&I Customers are on.

with the increasing prevalence of intermittent renewables and decreasing reliance on thermal generation.

28.2 Generators with "flexible" generation will be important in managing this shift given their ability to provide physically firm and/or shaped products. Physical firmness refers to the ability to provide reliable cover for periods where intermittent generation is low (e.g. low solar or wind periods). Shaped products are those that reflect the demand patterns of a particular customer group (usually residential customers) by increasing output during peak periods.

28.3 One way for a generator to provide flexible generation is by storing water in hydro schemes. As set out above, other options include thermal peaking generation (currently fueled by fossil fuels, but which in the future may be fueled by biomass or biofuels), battery storage and demand side flexibility. Over time, new forms of flexible electricity are likely to become available, such as improved grid scale batteries that can store larger amounts of energy for a longer time with lower losses.

28.4 The Market Development Advisory Group (**MDAG**) in its report Pricing in a Renewables-Based Electricity System made an important distinction between short term flexibility within a day, and medium to long term flexibility. It considered that the emergence of grid scale batteries is likely to increase competition in short term flexibility.[110] However, MDAG considered that competition issues may arise for medium to long-term flexibility as the market decarbonises, and we have therefore considered the impact of this transaction on these types of assets.

28.5 As set out below, this Transaction will not materially affect concentration in medium to long term flexibility as neither Contact nor Manawa's portfolio has a substantial amount of assets with this capability. Medium to long-term flexible electricity supply requires the ability to store fuel over long periods. This can be achieved on some hydro schemes if there is significant storage capacity, and with thermal generation by storing gas, coal or diesel for when it is needed most.

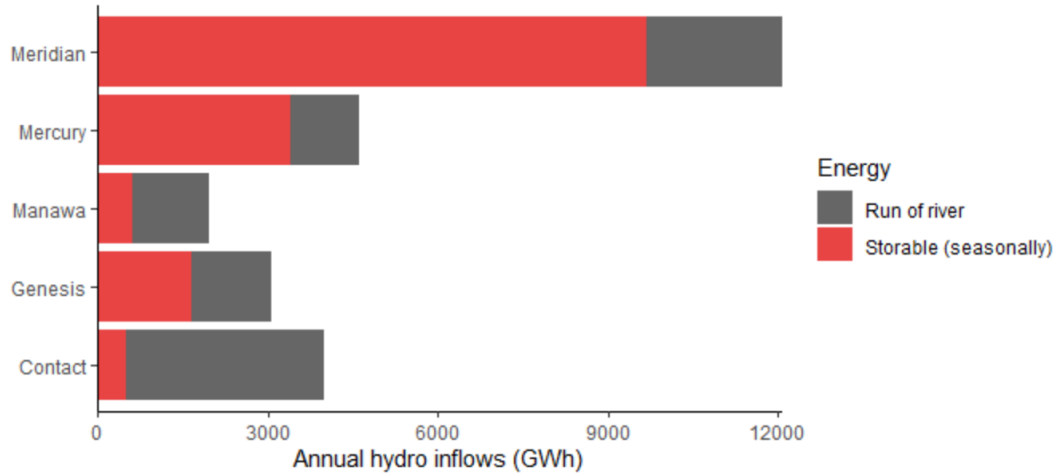
Hydro flexibility

28.6 While most hydro schemes have some ability to shape output over the short-term, only those with storage have medium to longer term flexibility. This is because in a 'run of river' scheme water can only be stored for a short period of time (within a day, or overnight), whereas schemes with the majority of flow through top of catchment storage lakes give them the ability to shift output across weeks and months. The figure below shows that, unlike other gentailers, most of the hydro assets owned by Contact and Manawa are largely run of river with limited upstream storage.[111]

[110] Increasing competition for short term flexibility is already starting to occur in New Zealand. For example, in October 2023 Waikato Electricity Lines (WEL) commissioned New Zealand's first grid scale battery. Recently Ethical Power and Kea-X have secured consents for a grid scale battery in Christchurch. Incumbents are building out battery capacity too, with Meridian's Ruakākā 100MW grid scale battery due to enter the market by the end of this year, Contact recently committed to build a battery that is expected to be operational by March 2026, and is considering a second battery at Stratford. Genesis also recently announced a final investment decision to build a 100MW battery at Huntly, with plans for up to 400MW of batteries.

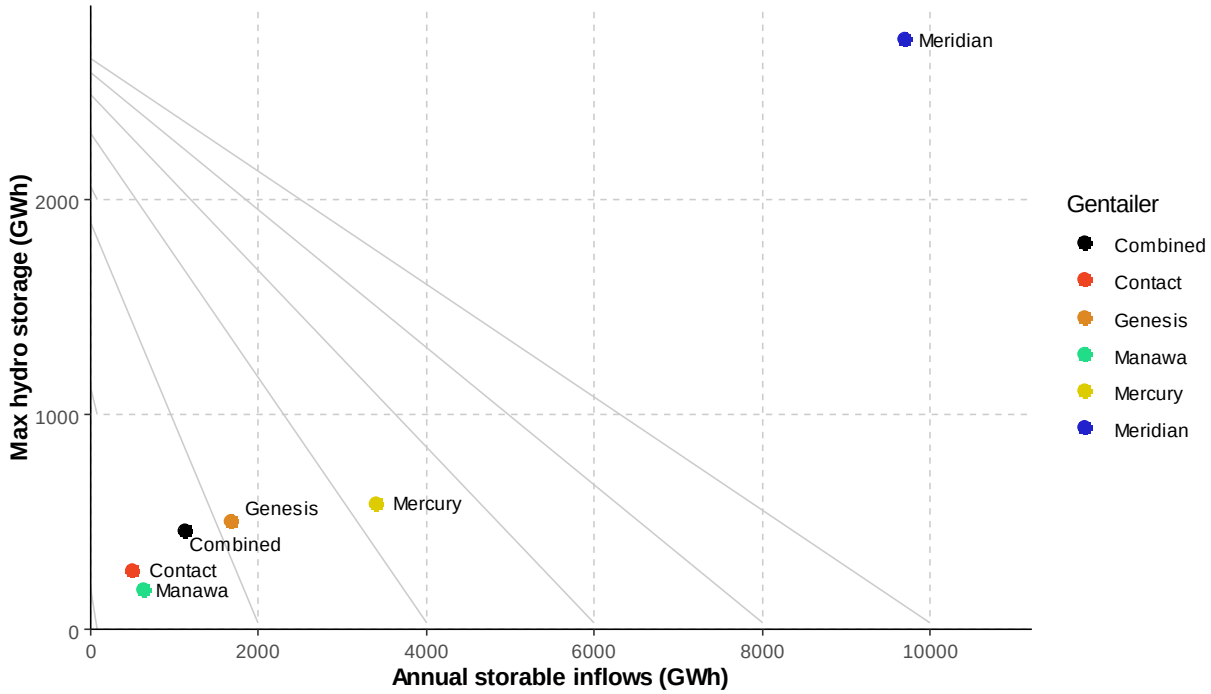
[111] Using inflow data from EA's EMI, using weekly inflows from 1980-2022, and data provided by Manawa for Mahinerangi (since 1980). Seasonal storage reservoirs are Lakes Taupo, Hawea, Manapouri, Te Anau, Tekapo, Pukaki, Waikaremoana, Cobb, Coleridge and Mahinerangi. Average specific power values for each station have been used to convert cumecs into GWh. For hydro plant without inflow data, average GWh generation has been used (per company data).

Figure 15: Hydro inflows of generators



28.7 The next figure highlights this further, showing that the Parties' controlled hydro storage is dwarfed by the other gentailers. This graph plots both lake storage capacity and yearly inflows into and through storage lakes, which regulate how much long-term flexibility is available each year. The hydro storage capacity shown in the graph is explained in the following paragraphs.

Figure 16: Controlled Hydro Storage (GWh) of generators



28.8 Meridian has the largest amount of flexible hydro storage capacity[112] over 2,500GWh of storage across Manapouri and the Waitaki schemes. It also has substantial hydro inflows of over 12,000GWh per year allowing it to draw down and replenish its storage lakes multiple times in a normal year.

28.9 Mercury and Genesis both also have significant flexible hydro storage capability. Mercury has ~500 GWh of storage capacity in Lake Taupō alone (through which ~3500 GWh equivalent of

[112] https://www.ea.govt.nz/documents/2243/Promoting-competition-in-the-wholesale-electricity-market.pdf at 6.43.

water flows each year). Genesis has storage capability in Lake Tekapo (~774GWh in summer) and Lake Waikaremoana (184GWh). [113]

28.10 Contact's medium-long term storable hydro is limited to Lake Hawea, which has a maximum capacity of 285GWh, and only ~500GWh of inflows each year. Manawa is similarly constrained. Manawa's most significant storage asset is its Waipori Power Scheme in Otago, which has up to [REDACTED] of storage capacity and [REDACTED] of annualised generation. These assets allow for seasonal shift of water, but are a small amount of total storage when compared with Mercury and Meridian storage lakes.

28.11 The Cobb and Coleridge Power Stations in Canterbury and Nelson are somewhat similar with [REDACTED] of storage capacity on ~[REDACTED] GWh of mean year generation respectively. With small storage volume compared with total annual generation there is a significant chance of spill if that water is not used frequently and the scale of the lakes mean that they are minor on a national scale.

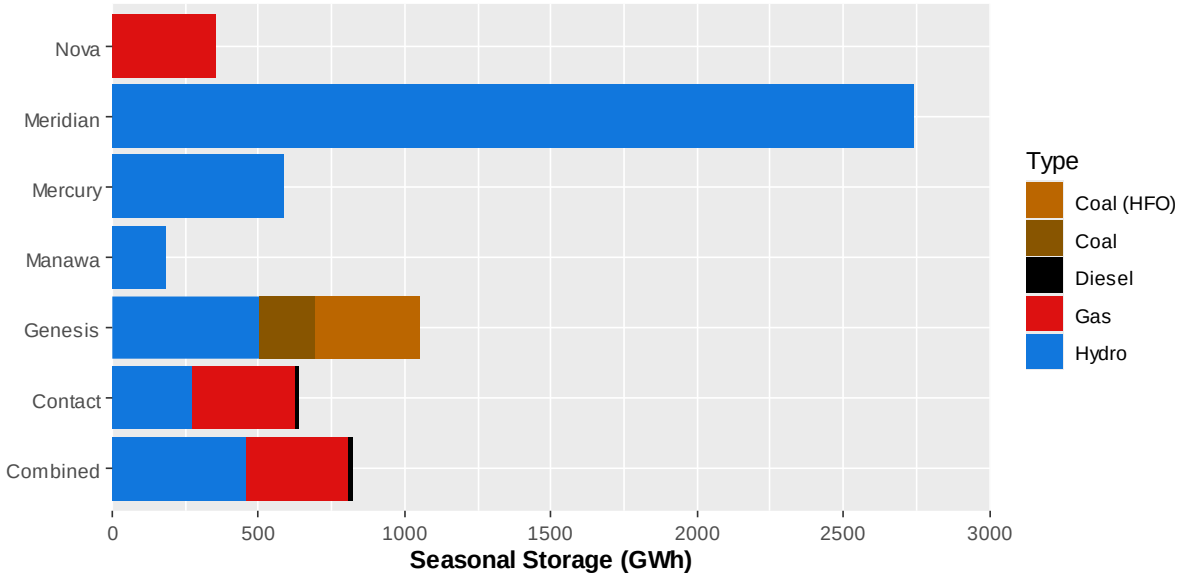
28.12 Because of the small size of the parties' hydro storage, this Transaction will have little impact on competition in this area. Based on total hydro storage and inflows the combined entity would represent approximately 11% of industry hydro storage capability. This is well below the Commission's concentration indicators.

Total flexibility, including thermal

28.13 While hydro storage may become the most important source of medium to longer term flexibility as the electricity sector decarbonises, Figure 17 below shows total current storage, including thermal. This includes Contact's rights to gas storage through its gas storage arrangement with FlexGas on the Ahuroa Gas Storage (**AGS**) facility. It uses this facility to store contracted gas for use in both thermal generation and supply its retail customer base. Contact's rights to store gas in this facility end in the [REDACTED]. Figure 17 demonstrates that neither Party has a substantial amount of flexibility, with the combined entity at around 15% of total energy storage, even when accounting for gas storage capability.

[113] Note that Tekapo has 220GWh of additional storage, and just over 60% of the water in Tekapo is held for Meridian's stations, so has been attributed to Meridian.

Figure 17: Seasonal Storage (GWh) across hydro and thermal assets[114]



28.14 This must be considered in the context of the rapidly changing role of thermal generation in the market.

28.15 As set out above, Contact has committed to net zero for its electricity generation by 2035, starting with the expected retirement of TCC and in later years it expects to be able to reduce output at the Stratford Peakers. Manawa has no thermal generation of any material scale.

28.16 Genesis currently provides flexibility through thermal generation in its Rankine units (using coal or gas) at its Huntly Power Station. While it is expected that ultimately use of coal[115] and gas will be phased out, it is possible that Huntly will be converted to run on biofuel or biomass to provide flexible generation for seasonal storage (but not peaking).[116]

28.17 In addition, Energy Minister Simeon Brown has recently announced plans to remove regulatory barriers to the construction of critically needed facilities to import liquified natural gas (LNG).[117] This may support the commissioning of further thermal generation plants in the future (but Contact is unlikely to build such plants given its 2035 net zero commitments).

28.18 In summary, the Transaction will not materially increase concentration of electricity assets with long-term flexibility as this is a small part of both portfolios (particularly as thermal generation is retired).

29. **Transaction will not give rise to vertical or conglomerate effects**

29.1 The Transaction will have no adverse impact on the ability of independent retailers, who compete with Contact at the retail level, to obtain supply of wholesale electricity. As discussed above, Contact expects that the Transaction will reduce its overall portfolio risk which would support increased sales of Fixed Price Contracts, including to independent retailers.

[114] This graph measures storage at the Ahuroa Gas Storage facility, diesel storage at Whirinaki and the coal stockpiles at Huntly. It does not measure total thermal capacity as most gas delivery is on a contractual take or pay basis, and cannot be stored. [REDACTED].
Note that this graph uses winter storage figures. Therefore, just over 60% of the water in Tekapo has been attributed to Meridian.
[115] Huntly's coal stockpile is assumed to be 1 million tonnes, of which Genesis has publicly stated it would utilitise up to 350kt for its own portfolio. The remaining 650kt is labelled Coal (HFO) for the purposes of this chart.
[116] https://media.genesisenergy.co.nz/genesis/investor/2022/Genesis%20Energy%20-%20Biofuels%20Insights.pdf.
[117] https://www.beehive.govt.nz/release/urgent-action-taken-bolster-energy-security.

29.2 It would mark a complete departure from Contact's prior market conduct if it were not to offer contracts to the market, including to independent retailers. Contact's input pricing to its retail business is equivalent to its pricing to contractual counterparties and fully transparent to the market through the published Internal Transfer Price (**ITP**) and its methodology. The Transaction will not change this. Retail market shares will be determined, as they are today, by retail competition and innovation. If Contact has compelling offers in the retail market it will gain customers, but it faces robust competition from other gentailers and independent retailers in doing so.

29.3 Any improved availability of Fixed Price Contracts (to the benefit of independent retailers) must logically be assessed against the counterfactual and, in particular, the likely reduction in Fixed Price Contracts available from Contact to other retailers and C&I customers (as noted in Contact's counterfactual at 13.17. Additionally, Contact expects in the counterfactual the volumes freed up when the Manawa / Mercury CFD rolls-off will be contracted to parties with investment grade credit rating which include gentailers, C&I and some independent retailers.

Strong competition in the retail market

29.4 There is robust competition in the retail market. As recently noted by the Commission in papers recently released under the Official Information Act when considering complaints made under section 36 of the Commerce Act:

> *we see clear evidence of competition between the four vertically-integrated gentailers in the upstream (wholesale), downstream (retail) and hedge markets, with competition at the margins from independent generators and/or retailers in each relevant market.*

29.5 In addition, in considering the section 36 complaints the Commission staff found that the input prices and margins of all electricity retailers were similar, irrespective of whether these were gentailers or independent retailers. The Commission found no evidence of price or margin squeeze:

> *The EA's retail gross margin data also includes each retailers' gross cost of energy (ie, its input cost), which ranges from $99.62 to $111 (per MWh). On the other hand, independent retailers' energy input costs ranged from $92.40 to $111.37 (per MWh). These roughly equivalent input costs, alongside the roughly equivalent retail margins being made, are not indicative of a market-wide margin squeeze.*

29.6 Nothing about the Transaction will change this analysis.

Contact's approach to pricing to its retail arm

29.7 The Code requires public disclosure of retail ITP, the ITP methodologies used and retailer gross margins. This enables the EA to understand and monitor pricing practices used by integrated generator retailers. Contact's ITP sets the price that Contact's wholesale business sells to Contact's retail business. For the wholesale business unit, the retail ITP provides a fixed price hedge for a portion of Contact's generation. For the customer business unit, the ITP provides fixed price certainty for electricity costs for its retailing business.

29.8 Contact has an internal standard operating procedure to calculate its retail ITP using a 'Retail Transfer Price Model'. It uses this model to determine a transfer price that its generation arm would hypothetically sell to its retail arm if the retail and generation arms were acting as two independent entities. The model takes the ASX settlement prices at Otahuhu and Benmore for the three years preceding the start date of the financial year or month being analysed before being adjusted for the shape and therefore price effect of a retail customer. To avoid short term effects and to offer improved price stability to its retail business, all linear hedging is completed six months from the period in question.

29.9 This approach motivates Contact to be indifferent to supply of contracted sales to third parties or its retail arm. It ensures no preference is given to its retail arm that could distort competition.

30. **The Transaction will accelerate investment in new renewable generation development**

30.1 Renewable electricity generation development and investment is in a period of rapid growth. This is expected to continue, with the phasing out of thermal generation in favour of renewable sources (including because of the increasing uncertainty in recent years of gas supply) and the significant increases in forecast demand as New Zealand electrifies, as set out in Part D above. NZAS' long-term commitment to continuing aluminium production at Tiwai has provided demand certainty, with both gentailers and more recent entrants announcing new committed investments and significant new development pipelines.[118] Further, the introduction of the Fast-track Approvals Bill is expected to drive generation development growth, with 71 fast-track requests already submitted under the Bill.

30.2 Figure 18 below shows the total committed and actively pursued generation projects reported in a recent report by Concept Consulting commissioned by the Electricity Authority.[119]

Figure 18: Committed and actively pursued generation projects reported in the 2023 Generation investment Survey (GWh per annum)

	2024	2025	2026
Committed volume (GWh per annum)	**3,029**	**1,286**	**58**
Actively pursued volume (GWh per annum)	**226**	**6,841**	**6,853**

30.3 This survey also reported that the amount of committed renewable electricity generation almost doubled between 2022 and 2023. Committed projects increased from an annual output capacity (once built) of around 2,600 GWh in 2022 to nearly 5000GWh in 2023. This is the equivalent of more than double Manawa's current annual production capacity of ~[REDACTED].[120] The annual development rate (based on committed/completed projects) for the period from 2021-2025 is over three times the rate of the development achieved from 2011 to 2020.[121]

30.4 In addition to these committed projects, there are actively pursued projects with an annual output of over 20,000 GWh (i.e. more than 10 times Manawa's current annual production) that could feasibly be completed by 2027, up from almost 13,000 GWh in 2022.[122] Furthermore, actively pursued projects with an annual output of over 38,000 GWh could feasibly be completed in 2028 and beyond.[123] Accordingly, moving forward a significant amount of new renewable development will come online.

30.5 By way of example, the following renewable generation projects have recently been committed:

[118] For example, in wake of the Tiwai announcement Mercury Energy announced that it will expand its Kaiwera Downs wind farm near Gore. See https://www.nzherald.co.nz/business/mercury-energy-to-expand-kaiwera-downs-wind-farm-after-smelter-deal/NVLJXYM2LRBQBJ5L5N7VAV2YHU/.
[119] https://www.ea.govt.nz/documents/4414/Generation_Investment_Survey_-_2023_update.pdf at p 17.
[120] Expected mean production levels.
[121] https://www.ea.govt.nz/documents/4414/Generation_Investment_Survey_-_2023_update.pdf at p. 2.
[122] https://www.ea.govt.nz/documents/4414/Generation_Investment_Survey_-_2023_update.pdf at p. 13, 17.
[123] https://www.ea.govt.nz/documents/4414/Generation_Investment_Survey_-_2023_update.pdf at p. 17.

(a) Contact has committed to a 280 GWh (150 MW) solar development project at Kowhai Park in Christchurch;

(b) Mercury has committed to a 525 GWh (155 MW) second stage wind development project at Kaiwera Downs in Southland;

(c) Lodestone Energy has committed to a 49GWh (32.7MW) solar farm at Whitianga in the Coromandel;

(d) solarZero has committed to a 30MW residential solar and battery virtual power plant; and

(e) the following 200 MWh (100 MW) BESS projects have been committed:

(i) Ruakaka (Meridian);

(ii) Glenbrook (Contact); and

(iii) Huntly (Genesis).

The Transaction will improve Contact's ability to execute on the combined entity's development pipeline

30.6 The Transaction will give Contact greater ability to develop future renewable generation projects. There are two key reasons for this:

(a) As described in further detail above, the combination of Contact's and Manawa's portfolios creates complementarities across the generation portfolio. The improved efficiencies of operating these assets within the same portfolio will mean Contact can use its expensive, and carbon-intensive thermal generation more efficiently for the purposes of back-up supply for both Contact's portfolio and the market overall, providing greater certainty of generation output and improving the combined entity's ability to risk-manage intermittent renewables.

(b) The combined entity will have a stronger balance sheet, which will increase Contact's ability to access financing necessary for projects and manage within its debt limits over a broader earnings base. As a more liquid entity it will also have a lower cost of capital, enhancing its ability to invest going forward.

30.7 The net effect of the above two factors is likely to result in higher levels of new investment and accelerated decarbonisation.

30.8 Contact is incentivised to pursue both its own existing development pipeline and Manawa's, although post the Transaction it will consider the most efficient ways to deliver the most valuable opportunities while maintaining, and working to grow, the market share of the combined entity. In any event, the provision of new generation projects is inherently competitive and the best structured and lowest cost projects are generally those that are executed. Even if Contact was determined not to pursue a development opportunity, this would not materially impact on the overall quantity of electricity supply. It would just mean that another competitor would fill the gap.

Future developments will not be diminished

30.9 The Transaction will not reduce future developments from the merged entity, other existing gentailers and a plethora of new developers.

30.10 In addition to the other major gentailers, there are a number of independent generators (e.g. Lodestone – see further detail above at 30.5(c)) who will compete strongly with the merged entity to develop new generation capacity. Furthermore, there are many, relatively low-cost, solar developments underway or planned in the market, and also a number of wind projects expected

to come online. For example, Genesis and Lodestone have recently announced the acquisition of advanced stage consented solar sites for development.[124]

30.11 The additional Fixed Price Contracts that result from this Transaction will also support other parties to make new generation investments. The additional Fixed Price Contracts can complement intermittent renewables, and partially reduce the volatility expected as the market decarbonises. Contact has in the past provided contracts that are well suited to supporting new investments. For example, Contact recently issued an expression of interest for risk management products provided by grid-scale batteries.

30.12 Critically, Contact does not see the Transaction materially changing the development landscape. Manawa is not uniquely placed to deliver future development projects compared to other competitors, nor are its projects (which are relatively early stage) so unique that others could not replicate them.

31. **No coordinated effects**

31.1 The Transaction will not, and will not be likely to, increase the potential for coordinated conduct in the relevant markets in New Zealand for the following reasons:

(a) **Manawa is a small part of the market**, at only 4.3% market share Manawa has limited ability to influence the behaviour of others. Following the Transaction the small increment in Contact's market share will not change market dynamics.

(b) **A large portion of the combined entity's assets are must-run**. As shown elsewhere in this application, the Parties have a high volume of run of river hydro. These assets cannot be used to engage in coordinated behaviour because their output is determined by the weather, not market conditions.

(c) **Pivotal supplier dynamics** – While a number of suppliers may be "gross pivotal" in a given trading period (albeit this is highly dynamic across trading periods) it does not necessarily follow that all of these suppliers will have the incentive to raise prices (i.e., that they are "net pivotal"). The analysis from Concept Consulting shows the limited proportion of time for which the combined entity will be pivotal in the market and therefore its lack of ability or incentive to exercise market power in spot trading. Furthermore, because not all suppliers share a common incentive to raise spot prices during a given trading period, tacit coordination of any short term output among them would not be feasible.

(d) **Trading conduct rules** – The trading conduct rules, which are closely monitored by the EA, serve as a critical safeguard against market power (both coordinated and unilateral). Additionally, any spillage of generation is monitored by the EA and is easily detectable by third parties, who can report breaches to the EA.

(e) **Market dynamics and new entry** – Furthermore, even if there was a sustained attempt by suppliers to collectively raise prices or limit output, this would provoke a competitive response signalling the need to further accelerate investment in new generation capacity in the wholesale market.

31.2 For the foregoing reasons, the Transaction cannot be said to materially increase the likelihood of coordination occurring in relation to the market for the supply of wholesale electricity in New Zealand.

32. **Ancillary Services**

32.1 The Parties also supply ancillary market services. There are five separate ancillary services as part of the electricity market:

[124] https://businessdesk.co.nz/article/energy/the-solar-rush-continues-with-genesis-and-lodestone-acquiring-sites.

(a) **Instantaneous Reserve** is capacity to meet demand if there is a sudden failure of a generation or transmission facility. Both fast start generation, and interruptible load participates in this market. Fast instantaneous reserve is available within six seconds, and interruptible load must operate within 1 second, and be able to operate for one minute. Sustained instantaneous reserve is available within 60 seconds and must be available for 15 minutes. These services are procured by Transpower via a 30 minute auction that is co-optimised with the primary electricity spot market. Costs are paid by asset owners of generating units greater than 60 MW and the HVDC owner (Transpower). Costs are allocated on an island basis, proportional to the quantity of electricity injected by a generator or the HVDC transfer quantity.[125]

(b) **Frequency keeping** includes both multiple frequency keeping (**MFK**) and Back-up single frequency keeping (Back-up **SFK**). These services are required to manage short term supply and demand imbalances to ensure that the system frequency is maintained at or near 50Hz. MFK is procured on an island basis via 30-minute auctions. Back-up SFK is procured directly by Transpower. Costs are paid by purchasers of electricity on a national basis, proportional to their share of grid offtake quantities.[126]

(c) **Voltage support** is provided by generating units or static equipment capable of producing or absorbing reactive power. This is done to maintain voltages on the system within Code limits. Currently Transpower does not procure any voltage support because they consider the reactive equipment currently available to be sufficient.[127]

(d) **Black start** is a service necessary to restore the system in the unlikely event of an island-wide blackout. This is procured by Transpower in a closed tender, limited to assets with the capability of performing this role. There are two suppliers of black start in each island. Black start costs are allocated to Transpower as the Grid Owner.[128]

(e) **Over frequency reserve** is provided by generating units that can be armed when required and automatically disconnected from the power system due to a sudden rise in system frequency. This service is procured by Transpower via a closed tender, and costs are paid by Transpower as the HVDC owner.[129]

32.2 Figure 19 below shows the contracted suppliers of these ancillary services. The only service where Contact and Manawa overlap is for instantaneous reserve.

Figure 19: Current contracted suppliers of ancillary services[130]

Ancillary Service Agent	Instantaneous Reserve	Multiple Frequency Keeping	Backup Single Frequency Keeping	Voltage support	Black Start	Over Frequency Reserve
Contact Energy	♦	♦	♦		♦	♦
Counties Power	♦					
Enel X NZ	♦					

[125] https://www.transpower.co.nz/system-operator/information-industry/electricity-market-operation/ancillary-services/instantaneous.
[126] https://www.transpower.co.nz/system-operator/information-industry/electricity-market-operation/ancillary-services/frequency.
[127] https://www.transpower.co.nz/system-operator/information-industry/electricity-market-operation/ancillary-services/voltage.
[128] https://www.transpower.co.nz/system-operator/information-industry/electricity-market-operation/ancillary-services/black-start.
[129] https://www.transpower.co.nz/system-operator/information-industry/electricity-market-operation/ancillary-services/over-frequency.
[130] https://www.transpower.co.nz/system-operator/information-industry/electricity-market-operation/ancillary-services/current.

Ancillary Service Agent	Instantaneous Reserve	Multiple Frequency Keeping	Backup Single Frequency Keeping	Voltage support	Black Start	Over Frequency Reserve
Genesis Energy	♦	♦	♦		♦	
King Country Energy	♦					
Manawa Energy	♦					
Mercury Energy	♦	♦	♦		♦	♦
Meridian Energy	♦	♦	♦		♦	♦
Nga Awa Purua (Mercury)						♦
Tuaropaki (Mercury)						♦
Vector	♦					
WEL Networks	♦					
Wellington Electricity Lines	♦					

Overlap in the supply of instantaneous reserve

32.3 Both Contact and Manawa supply instantaneous reserve services. However, neither party is a significant supplier in this market and following the Transaction the combined entity will continue to face growing competition for these services.

32.4 In terms of Contact's capacity:

(a) it currently provides instantaneous reserve capacity from its hydro, thermal and demand-side flexibility operations; and

(b) once commissioned, it will also be able to provide such services from its Glenbrook BESS.

32.5 Contact can offer a small amount of instantaneous reserve capacity from its hydro assets on the Clutha river. Other hydro asset owners in the South Island have much more capacity and tend to provide much more instantaneous reserve.

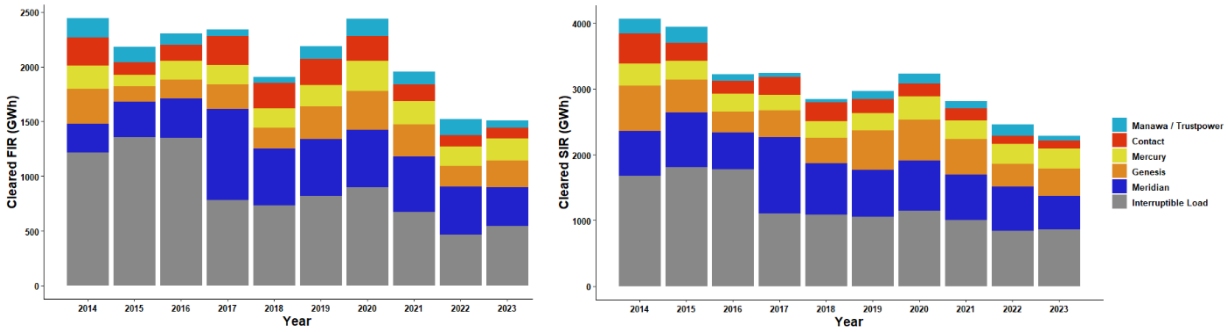
32.6 In addition, Contact provides instantaneous reserve services from its Stratford Peaker Plants, Whirinaki and TCC (currently).

32.7 Contact also provides instantaneous reserve services via Simply Energy's demand flex programme. Simply installs control units at a business's premise and has a contract in place to reduce load to provide ancillary services. This service is offered across the country, but there is more capacity available in the North Island.

32.8 Manawa provides limited instantaneous reserves via its hydro assets at Matahina, Wheao and Pātea.

32.9 Market shares for instantaneous reserve are set out in the figure below. These charts show both a decrease in reserve requirements overall and a decreasing share for both Contact and Manawa. Over the full period (2014-2023), Manawa is 4.3% of SIR and 5.6% of FIR, whereas Contact is 7.4% of SIR and 8.8% of FIR. In 2023, Manawa is 3.2% of SIR and 4.6% of FIR, whereas Contact is 4.9% of SIR and 6.3% of FIR.

Figure 20: Ancillary services market shares (2014-2023)[131]



32.10 The Electricity Authority undertakes an annual assessment of concentration in instantaneous reserves and continues to find that concentration "remains low and stable long term".[132]

32.11 The market for ancillary services is expected to grow in coming years with the potential for new products in addition to the existing instantaneous reserves products. As noted by Transpower, grid scale batteries are well suited to provide ancillary services as they can ramp up output instantaneously. In their 2021 report Whakamana i Te Mauri Hiko, they estimated that the cost of batteries would reduce by 5% per year, becoming viable for deployment in the late 2020s. New Zealand is tracking well ahead of this with Waikato Electricity Lines commissioning the first grid scale battery last year, Meridian's 100MW battery due for completion later this year, Contact's 100MW battery project under construction at Glenbrook, Genesis recently reaching a final investment decision to build a 100MW battery at Huntly, with plans for up to 400MW, and Ethical Power and Kea X gaining resource consent for a battery in Christchurch.

33. Conclusion

33.1 For the foregoing reasons, the Commission can be satisfied that the Transaction will not have, and will not be likely to have, the effect of substantially lessening competition in the national wholesale electricity (or any other) market.

[131] The annual total cleared reserves are given in GWh, which is not a measure of energy, but simply an aggregation of cleared SIR and FIR, in MW over each year.
[132] https://www.ea.govt.nz/documents/4042/Annual_Report_202223.pdf.

Part H: Confidentiality

34. **Reasons for seeking confidentiality**

34.1 Confidentiality is sought in respect of the information in this application that is highlighted blue (being the Applicant's confidential information), green (being the Target's confidential information) and teal (being information which is confidential to both Parties) (the **Confidential Information**). Confidentiality is sought for the Confidential Information for the purposes of section 9(2)(a) and 9(2)(b) of the Official Information Act 1982 on the following grounds.

(a) The Confidential Information is commercially sensitive and valuable information which is confidential to either, or both, Parties.

(b) Disclosure of the Confidential Information would be likely to prejudice unreasonably the commercial position of the Parties.

(c) To protect the privacy of natural persons.

34.2 The Applicant requests that it is notified if the Commission receives any request under the Official Information Act 1982 for the release of any part of the Confidential Information. They also request that the Commission seek and consider their views as to whether the Confidential Information remains confidential and commercially sensitive before it responds to such requests.

Part I: Declaration

I, _____, have prepared, or supervised the preparation, of this notice seeking clearance.

To the best of my knowledge, I confirm that:

- all information specified by the Commission has been supplied;
- if information has not been supplied, reasons have been included as to why the information has not been supplied;
- all information known to me that is relevant to the consideration of this notice has been supplied; and
- all information supplied is correct as at the date of this notice.

I undertake to advise the Commission immediately of any material change in the circumstances relating to the notice.

I understand that it is an offence under the Commerce Act to attempt to deceive or knowingly mislead the Commission in respect of any matter before the Commission, including in these documents.

I am a director/officer of the company and am duly authorised to submit this notice.

Name and title of person authorised to sign:

_____

Sign:_____ **Date:**_____

Part J: Appendices

Appendix 1	Frontier Economics report – separately attached
Appendix 2	Concept Consulting report – separately attached
Appendix 3	Contact's structure chart
Appendix 4	Contact's generation facilities
Appendix 5	Contact's FY24 and FY23 Integrated Reports – separately attached
Appendix 6	Contact's annual revenue for the last two financial years
Appendix 7	Contact's key competitors and trade or industry associations
Confidential Appendix 8	Contact's key customers
Confidential Appendix 9	Copies of Contact's internal documents – provided separately
Appendix 10	Manawa's structure chart
Appendix 11	Manawa's generation facilities
Appendix 12	Manawa's FY24 and FY23 Integrated Reports – separately attached
Appendix 13	Manawa's annual revenue for the last two financial years
Appendix 14	Manawa's key competitors and trade or industry associations
Confidential Appendix 15	Manawa's key customers
Appendix 16	Scheme Implementation Agreement
Confidential Appendix 17	Manawa's counterfactual
Appendix 18	Maps showing the locations of the Parties' and their competitors' facilities and key infrastructure
Appendix 19	National wholesale electricity market – key competitors
Appendix 20	National retail electricity market – key competitors

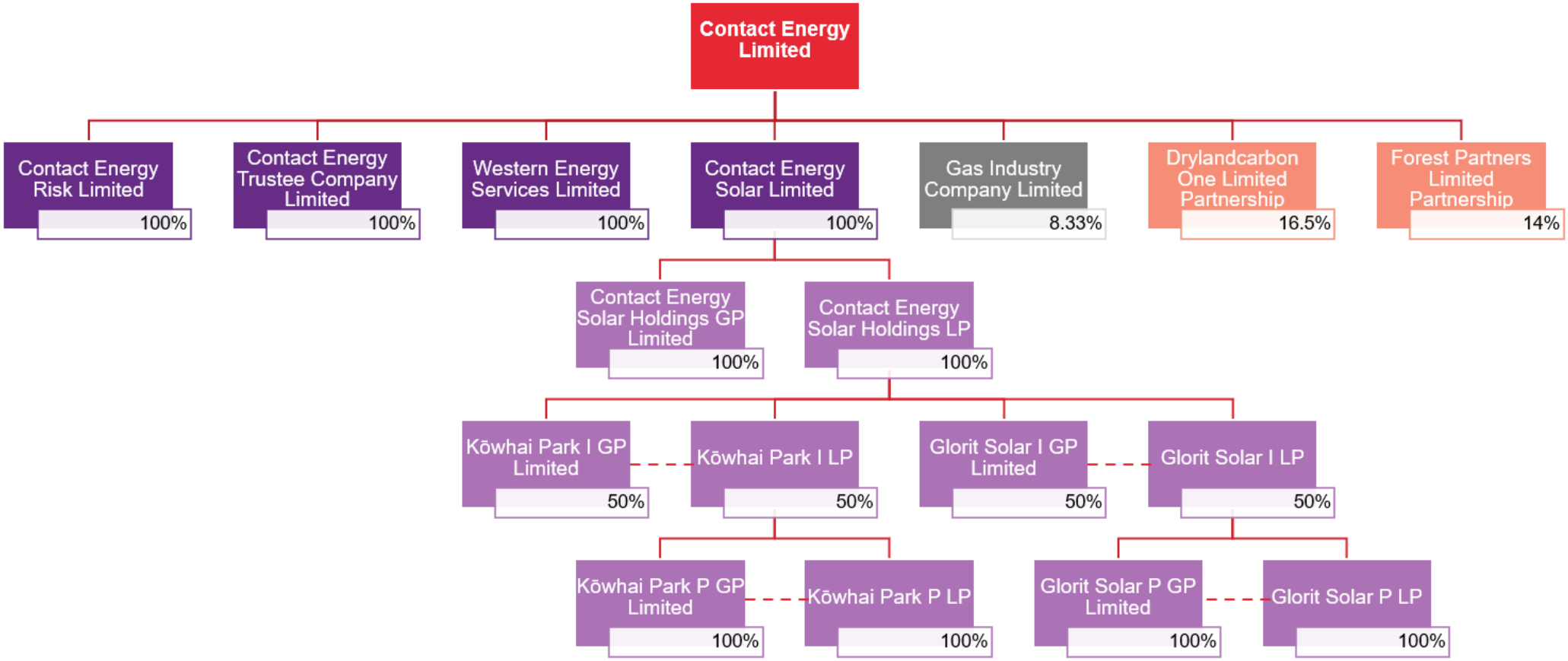
Appendix 1 – Frontier Economics Report

Provided as a separate document.

Appendix 2 – Concept Consulting report

Provided as a separate document.

Appendix 3 – Contact's structure chart



Appendix 4 – Contact's generation facilities

No.	Region	Facility type	Facility	Services provided
1.	Otago	Concrete gravity dam	Clyde Dam	Hydro electricity generation – 464 MW generating capacity
2.	Otago	Concrete gravity dam	Roxburgh	Hydro electricity generation – 320 MW generating capacity
3.	Canterbury	Solar	Kowhai Park (planned)	Expected 150 MW capacity.
4.	Taupo / Central North Island	Geothermal powerstation	Te Mihi	Geothermal power station - 166 MW of generating capacity,
5.	Taupo / Central North Island	Geothermal powerstation	Ohaaki	Geothermal power station. 37 MW capacity.
6.	Taupo / Central North Island	Geothermal powerstation.	Poihipi	37 MW capacity.
7.	Taupo / Central North Island	Geothermal powerstation	Wairakei	132 MW capacity.
8.	Taupo / Central North Island	Geothermal powerstation	Wairakei (Binary Plant)	124 MW capacity.
9.	Taupo / Central North Island	Geothermal powerstation	Te Huka I & II	26.2 MW capacity.
10.	Taupo / Central North Island	Geothermal powerstation	Te Huka III	On line in FY25. 51 MW capacity
11.	Taupo / Central North Island	Geothermal powerstation	Tauhara	On line in FY24. 174MW capacity.
12.	Hawkes Bay	Thermal power station.	Whirinaki	Capacity of 155MW.
13.	Taranaki	Thermal power station.	Stratford	Taranaki Combined Cycle (TCC) Power Station. 330 MW current capacity.
14.	Taranaki	Stratford Peakers	Stratford	2 x 105MW
15.	Auckland	Battery	Glenbrook	100MW, due to be completed in early 2026.

Appendix 5 – Contact's FY24 and FY23 Integrated Reports

Provided as a separate document.

Appendix 6 – Contact's annual revenue for the last two financial years

Financial year	Revenue
FY24	2,863 million
FY23	2,118 million

Appendix 7 – Contact's key competitors and trade or industry associations

Key competitors	Contact details*
Gentailer / generator competitors	
Genesis	Malcolm Johns Chief Executive Officer CustomerCare@genesisenergy.co.nz 0800 600 900
Mercury	Stew Hamilton Chief Executive Officer [REDACTED] 0800 10 18 10
Meridian	Neal Barclay Chief Executive Officer hello@meridian.co.nz 0800 496 496
Nova Energy (owned by Todd Corporation)	Babu Bahirathan Chief Executive Officer info@novaenergy.co.nz 0800 668 236
Lodestone Energy	Gary Holden Managing Director info@lodestoneenergy.co.nz N/A
Pioneer Energy	Fraser Jonker Group Chief Executive Officer enquire@pioneerenergy.co.nz 03 440 0022
NZ Windfarm	David Prentice Chief Executive Officer info@nzwindfarms.co.nz 06 280 2773
solarZero	Matt Ward Chief Executive Officer customercare@solarzero.co.nz

	0800 11 66 55
Top Energy (Ngawha geothermal)	Russell Shaw Chief Executive Officer feedback@topenergy.co.nz 0800 867 363
WEL Networks	Garth Dibley Chief Executive Officer Communication@wel.co.nz 0800 800 935
Retailer competitors	
Electric Kiwi	Luke Blincoe Chief Executive Officer info@electrickiwi.co.nz N/A
Flick Electric	Pavan Vyas Chief Executive Officer [REDACTED] 0800 435 425
Pulse Energy	Sharnie Warren Chief Executive Officer customer.care@pulseenergy.co.nz 0800 785 733
Frank Energy (owned by Genesis)	Malcolm Johns Chief Executive Officer business@frankenergy.co.nz 0800 086 400
Globug (owned by Mercury)	Stew Hamilton Chief Executive Officer helpdesk@globug.co.nz 0800 773 729
Powershop (owned by Meridian)	Neal Barclay Chief Executive Officer admin@powershop.co.nz N/A
Ecotricity	Al Yates

	Chief Executive Officer bring.change@ecotricity.co.nz 0800 845 000
Slingshot / 2degrees	Mark Callendar Chief Executive Officer info@email.slingshot.co.nz 0800 89 2000 / 0800 022 022
Octopus Energy	Ari Sargent Managing Director kiaora@octopusenergy.nz 0800 947 867

*As Contact does not have competitor contact details, this information has been publicly sourced.

Association	Contact details
The Electricity Retailers Association of New Zealand (ERANZ)	[REDACTED]
Business NZ	[REDACTED]
Business New Zealand Energy Council (BEC)	[REDACTED]
Sustainable Business Council	[REDACTED]
The Climate Leaders Coalition	[REDACTED]
The New Zealand Initiative	[REDACTED]

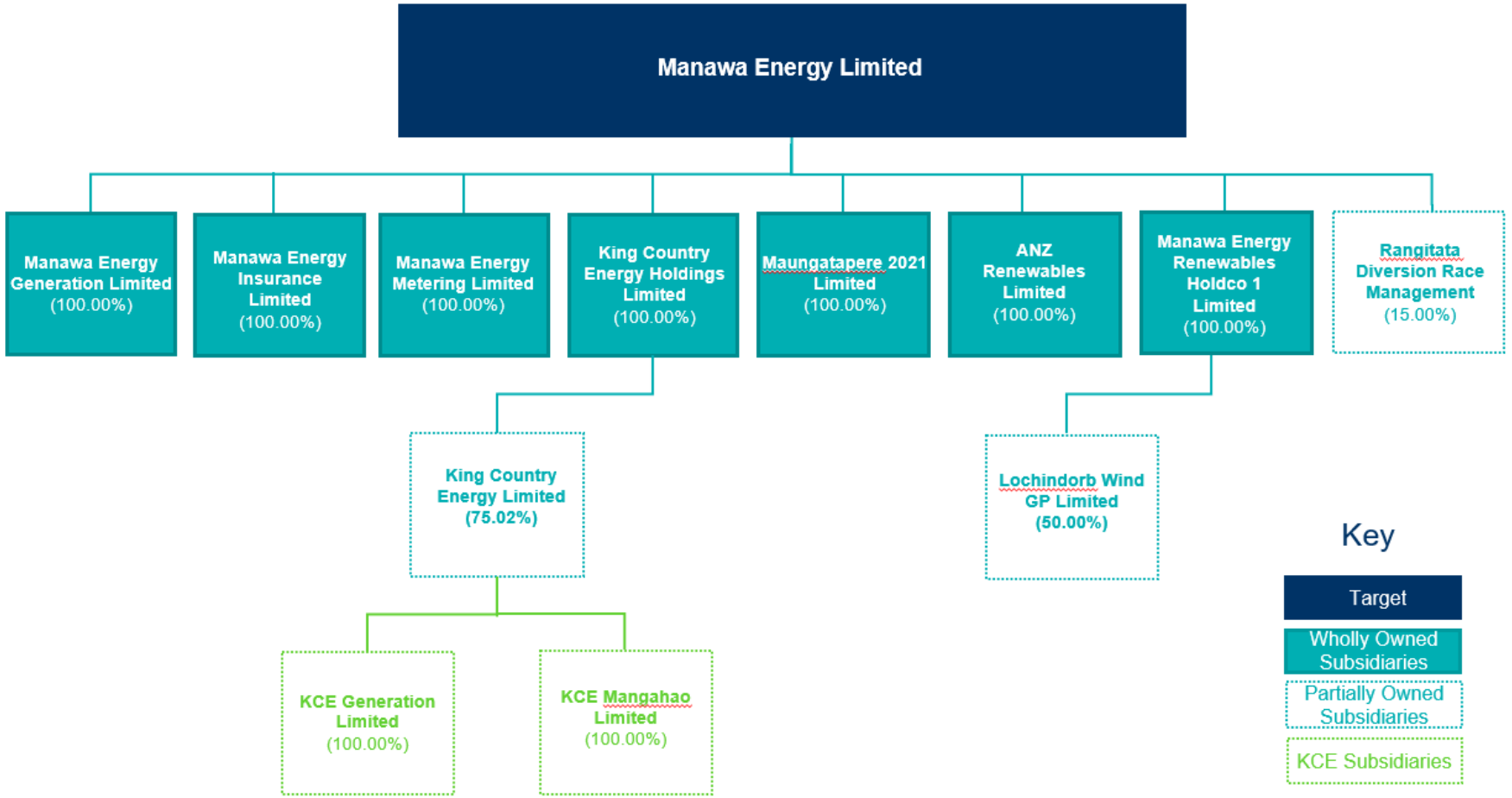
Appendix 8 – Contact's key customers

No.	Key customers – nationally	Annual GWh	FY24 revenue	Contact details
1.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
3.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
4.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
5.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
6.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
7.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
8.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
9.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
10.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
11.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
12.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Appendix 9 – Copies of Contact's internal documents

Provided separately.

Appendix 10 – Manawa's Structure chart



Appendix 11 – Manawa's facilities

No.	Region	Facility type	Facility	Capacity
1.	Northland	Thermal	Bream Bay Peaker	9MW ([REDACTED]).
2.	Waikato/Bay of Plenty	Hydro	Kaimai Power Scheme	42MW capacity.
3.	Waikato/Bay of Plenty	Hydro	Matahina Power Station	75MW capacity.
4.	Waikato/Bay of Plenty	Hydro	Wheao & Flaxy Power Scheme	28MW capacity.
5.	Ruapehu	Hydro	Wairere Power Station	4MW capacity.
6.	Ruapehu	Hydro	Mokauiti Power Station	2MW capacity.
7.	Taupo / Central North Island	Hydro	Hinemaiaia Power Scheme	7MW capacity.
8.	Taupo / Central North Island	Hydro	Kuratau Power Station	6MW capacity.
9.	Hawkes Bay	Hydro	Esk Power Scheme	4MW capacity.
10.	Taranaki	Hydro	Pātea Power Station	34MW capacity.
11.	Taranaki	Hydro	Mangorei Power Station	4MW capacity.
12.	Taranaki	Hydro	Motukawa Power Scheme	5MW capacity.
13.	Manawatu/Wanganui	Hydro	Mangahao Power Scheme	40MW capacity.
14.	Ruapehu	Hydro	Piriaka Power Station	1MW capacity.
15.	Marlborough	Hydro	Waihopai Power Station	3MW capacity.

16.	Marlborough	Hydro	Branch River Power Scheme	11MW capacity.
17.	Nelson	Hydro	Cobb River Power Station	36MW capacity.
18.	West Coast	Hydro	Dillmans Power Scheme	11MW capacity.
19.	West Coast	Hydro	Kaniere Forks / McKays Creek Power Scheme	1MW capacity.
20.	West Coast	Hydro	Arnold Power Station	3MW capacity.
21.	West Coast	Hydro	Wahapo Power Scheme	3MW capacity.
22.	Canterbury	Hydro	Highbank Power Scheme	26MW capacity.
23.	Canterbury	Hydro	Coleridge Power Station	40MW capacity.
24.	Otago	Hydro	Waipori Power Scheme	93MW capacity (but conveyance limited to 76MW).
25.	Otago	Hydro	Paerau & Patearoa Power Stations	12MW capacity.
26.	Otago	Hydro	Deep Stream Power Scheme	6MW capacity.

Confidential Appendix 12 – Manawa's FY24 and FY23 Integrated Reports

Provided as separate document.

Appendix 13 – Manawa's annual revenue for the last two financial years

Financial year	Revenue
FY24	$473,113,000
FY23	$436,794,000

Appendix 14 – Manawa's key competitors and trade or industry associations

Key competitors	Contact details
Please refer to the wholesale electricity market key generator competitors listed in Appendix 7.	

Association	Contact details
Please refer to contact details listed at Appendix 7 for ERANZ, BusinessNZ, Sustainable Business Council and the Climate Leaders Coalition. Manawa is a part of some industry fora for which there are no separate contact details (Electricity CEO Forum, and Electricity Sector Environment Group).	
NZ Wind Energy Association (NZWEA)	[REDACTED]
Independent Electricity Generators Association (IEGA)	[REDACTED]
Manawa is also a member of or involved in a number of industry groupings which Manawa does not apprehend to be relevant to the clearance application (NZ Institute of Safety Management (www.nzism.org), Business Leader Health & Safety Forum (www.forum.org.nz), Aotearoa Circle (www.theaotearoacircle.nz), Electricity Engineers Association (www.eea.co.nz),CEATI (www.ceati.com), NZ Parliamentary and Business Trust (www.nzbpt.nz), Flexforum (info@flexforum.nz), Sustainable Energy Association of New Zealand (www.seanz.org.nz), New Zealand Society on Large Dams (www.nzsold.org.nz). Manawa can provide further details if necessary.	

Confidential Appendix 15 – Manawa's key customers

No.	Key customers (nationally)	Annual GWh [133]	Revenue (000's)[1]	Contact details
1.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
3.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
4.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
5.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
6.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
7.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
8.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
9.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
10.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[133] Based on actual volumes and revenues between Mar 2023 & Feb 2024 with individual sites pro-rated to 12-months by dividing the total volume and revenue by the known months and multiplying by 12.

Appendix 16 – Scheme Implementation Agreement

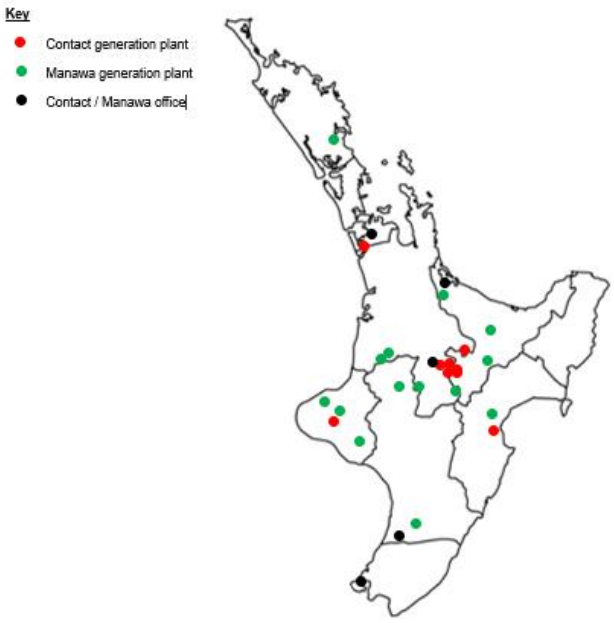
Provided as a separate document.

Confidential Appendix 17 – Manawa's counterfactual

[REDACTED]

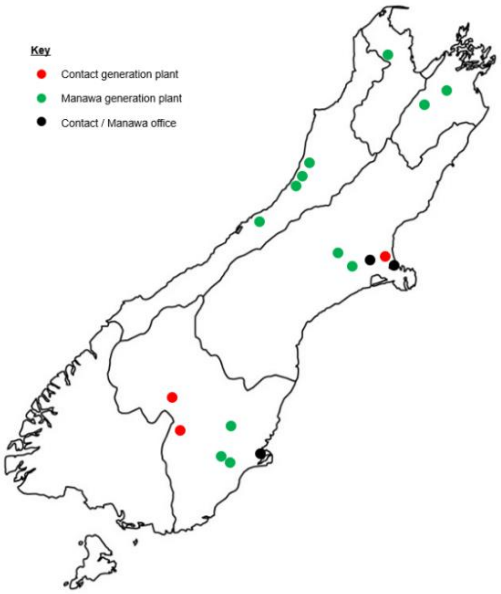
Appendix 18 - Maps showing the locations of the Parties' facilities

North Island asset & office locations



Region	Station	Type	MW	
Auckland	Glenbrook (planned)	BESS	100	●
Northland	Bream Bay	Thermal	9 [REDACTED]	●
Waikato / Bay of Plenty	Kaimai Matahina Wheao & Flaxy	Hydro Hydro Hydro	42 75 28	● ● ●
Taupo / Central North Island	Te Mihi Ohaaki Poihipi Wairakei (including Binary) Te Huka I & II Te Huka III (online FY25) Tauhara (online FY24) Hinemaiaia Kuratau	Geothermal Geothermal Geothermal Geothermal Geothermal Geothermal Geothermal Hydro Hydro	166 37 37 138.4 26.2 51 174 7 6	● ● ● ● ● ● ● ● ●
Ruapehu	Wairere Mokauiti Piriaka	Hydro Hydro Hydro	4 2 1	● ● ●
Hawkes Bay	Whirinaki Esk	Thermal Hydro	155 4	● ●
Taranaki	TCC Stratford Peakers Patea Mangorei Motukawa	Thermal Thermal Hydro Hydro Hydro	330 (maximum currently) 2 x 105 34 4 5	● ● ● ● ●
Manawatu / Wanganui	Mangahao	Hydro	40	●

South Island asset & office locations



Region	Station	Type	MW	
Marlborough	Waihopai Branch	Hydro Hydro	3 11	● ●
Nelson	Cobb	Hydro	36	●
West Coast	Dillmans Kaniere Forks Arnold Wahapo	Hydro Hydro Hydro Hydro	11 1 3 3	● ● ● ●
Canterbury	Kowhai Park (planned) Highbank Coleridge	Solar Hydro Hydro	150 27 40	● ● ●
Otago	Clyde Roxburgh Waipori Paerau Deep Stream	Hydro Hydro Hydro Hydro Hydro	464 320 93* 12 6	● ● ● ● ●

*conveyance limited to 76MW

Appendix 19 – National wholesale electricity market – Key competitors

Company	Overview of operations
Genesis	Genesis Energy is one of New Zealand's large-scale gentailers, with a range of different power stations employed to provide electricity to New Zealand. Genesis operates a number generation schemes. • The Huntly Power Station is the largest power station in the country and has a production capacity of 1,200 MW of electricity.[134] Huntly uses gas, coal and diesel to generate electricity, and reinforces electricity supply when other sustainable power sources aren't generating enough electricity.[135] Genesis has been trialling alternative fuels, such as biomass, which is a coal alternative produced from plant matter.[136] • The Tongariro Power scheme produces 361.8 MW of electricity across its three hydro power stations; Rangipō (120 MW), Tokaanu (240 MW), and Mangaio (1.8 MW).[137] • The Tekapo Power scheme generates 190 MW of electricity using water from Lake Tekapo, through the Tekapo A and Tekapo B power stations.[138] • Waikaremoana Power scheme produces 138 MW of power and is located in northern Hawkes Bay. The scheme consists of three power stations, the Tuai, Piripaua, and Kaitawa, which produce electricity using water from the Waikaretakehe River and Waikaretakehe Lake.[139] • The Ha Nui Windfarm, has a capacity of 8.65 MW through the 15 wind turbines.[140] Further, Genesis is advancing new electricity generation developments. In a joint venture with FRV Services Australia (**FRV**), Genesis has announced that it plans to develop four new solar farms across New Zealand, with a total generation capacity of 400MW.[141] The first, Lauriston Solar Farm in Canterbury, is under development with the first row of panels installed.[142] Once completed, it will cover an area of 93 hectares and have a capacity of 63MW.[143] With completion of panels, the grid will begin generating electricity. Also with FRV, Genesis has confirmed a further three new North Island sites for solar farms,[144] with one advanced stage consented site confirmed in the Hawkes Bay.[145] The first electricity to come out of these sites is expected by 2026. The remaining two sites are in Manawatu, and Waikato.[146] Genesis Energy has also consent to build a wind farm on a large site approximately 20 kilometres east of Eketahuna and Pahiatua, and 20 kilometres north east of Masterton. [147]
Mercury	Mercury Energy is one of New Zealand's gentailers, producing electricity through hydro, geothermal and wind sources. Mercury has a total of 9 hydropower stations, being Karapiro (which has a generational capacity of 96MW, but is currently being upgraded to increase generation to 112.5MW), Maraetai I and II (350MW), Ohakuri (108MW), Arapuni (192MW), Whakamaru (100MW), Aratiatia (78MW), Waipapa (51MW), Atiamuri (80MW), and the Taupo gates.[148] These hydro stations alone produced an average combined total of 10% of New Zealand's electricity annually.[149]

[134] https://www.genesisenergy.co.nz/about/generation/huntly-power-station.
[135] https://www.genesisenergy.co.nz/about/generation/huntly-power-station.
[136] https://www.genesisenergy.co.nz/about/sustainability/future-of-huntly.
[137] https://www.genesisenergy.co.nz/about/generation/tongariro-power-scheme.
[138] https://www.genesisenergy.co.nz/about/generation/tekapo-power-scheme.
[139] https://www.genesisenergy.co.nz/about/generation/waikaremoana-power-scheme.
[140] https://www.genesisenergy.co.nz/about/generation/hau-nui-wind-farm.
[141] https://www.genesisenergy.co.nz/about/news/genesis-secures-a-further-400-mw-of-solar-across-three-sites.
[142] https://www.genesisenergy.co.nz/about/news/golden-row-completed-at-lauriston-solar-farm.
[143] https://www.genesisenergy.co.nz/about/news/financial-close-reached-on-large-scale-solar-farm.
[144] https://www.genesisenergy.co.nz/about/news/genesis-secures-a-further-400-mw-of-solar-across-three-sites.
[145] https://www.genesisenergy.co.nz/about/news/genesis-secures-new-solar-site-in-bay-of-plenty.
[146] https://www.genesisenergy.co.nz/about/news/genesis-secures-a-further-400-mw-of-solar-across-three-sites.
[147] https://www.windenergy.org.nz/castle-hill.
[148] Data sourced from: https://www.emi.ea.govt.nz/Wholesale/Datasets/Generation/GenerationFleet/Existing Dispatched Generation Plant.csv data.
[149] https://www.mercury.co.nz/about-us/renewable-energy/hydro-generation.

	Mercury also generates electricity through its wind farms:[150] • The Turitea Wind Farm is New Zealand's largest wind farm, and was fully commissioned in May of 2023. It has a production capacity of up to 222 MW. • Kaiwera Downs Wind Farm (Stage 1) was completed in November of 2023, and has an output capacity of 43 MW. • The Mahinerangi Wind Farm, which is also a development asset and will continue to grow in size and production capacity, which is currently 36 MW (output purchased by Manawa via a PPA). • The Tararua wind farm is located in the lower North Island, and has a maximum output of 161 MW (output purchased by Manawa via a PPA). • The Waipipi Wind Farm, in South Taranaki, consists of 31 wind turbines which have a combined maximum capacity of 133 MW (output purchased by Genesis via a PPA). Mercury also produces renewable energy through its five geothermal plants, which offer a consistent supply of energy. The five plants are located at Kawerau (106MW), Rotokawa (31MW – a JV partnership), Nga Awa Purua (147MW – JV partnership), Mokai (113MW – Mercury has joint ownership with the Tuaropaki Trust), and Nga Tamariki (87MW).[151] Mercury has announced it will be expanding Nga Tamariki in 2024, which will have a finalised annual generation of 390GWh and increase station net output by 46MW.[152] In the last half of 2023, the geothermal plants produced a combined 1,305 GWh of electricity.[153] In addition to the above, Mercury has announced the development of multiple future projects:[154] • The Kaiwaikawe Wind Farm, which received resource consent in March of 2022, is proposed to be constructed in Dargaville, and will have an approximate maximum capacity of 73 MW.[155] • Mahinerangi (Stage 2) is a follow on from stage 1 of the Mahinerangi Wind Farm. Stage 2 allows for up to 100 turbines to be constructed, with an approximate maximum output of 164 MW. • The Puketoi wind farm is proposed to comprise of 53 turbines for combined maximum capacity of 228 MW. The project resource consent to start construction was extended to 2031.[156] • Kaiwera Downs (Stage 2) is the second instalment of the Kaiwera Downs 1 Wind Farm. Once completed, it will have a combined maximum capacity of 198 MW.[157] • Nga Tamariki is to be expanded through the addition of a fifth generating unit, creating an additional 46MW of energy.[158]
Meridian	Meridian is New Zealand's largest gentailer, which generates its energy entirely from renewable sources, namely wind power, hydro power and solar power. Meridian operates hydro schemes in two locations, Manapōuri and Waitaki; the latter is comprised of eight smaller generation plants, of which Meridian owns six. *Manapōuri* • Manapōuri station: this is the largest hydro power station in New Zealand. It has seven 128MW generating units with an operating maximum reaching 800MW. The station is located in the Fiordland National Park.[159]

[150] https://www.mercury.co.nz/about-us/renewable-energy/wind-generation .
[151] In relation to Mercury's JV partnerships, MW output only reflects Mercury's share of the output not the total output.
[152] https://issuu.com/mercurynz/docs/hy2024_results_presentation?fr=sOWRhNzYyNzY3MTM at 2-3.
[153] https://issuu.com/mercurynz/docs/quarterly_operational_update_q2fy2024?fr=sMWE1NzYyNzY3MTM , at 3.
[154] https://www.mercury.co.nz/about-us/renewable-energy/wind-generation.
[155] https://www.mercury.co.nz/about-us/renewable-energy/wind-generation/kaiwaikawe-wind-farm.
[156] https://www.mercury.co.nz/about-us/renewable-energy/wind-generation/puketoi-wind-farm.
[157] https://www.mercury.co.nz/about-us/renewable-energy/wind-generation/kaiwera-downs-wind-farm.
[158] https://www.mercury.co.nz/about-us/renewable-energy/wind-generation/kaiwera-downs-wind-farm.https://www.mercury.co.nz/about-us/renewable-energy/wind-generation/kaiwera-downs-wind-farm
[159] https://www.meridianenergy.co.nz/power-stations/hydro/manapouri.

	Waitaki Valley • Aviemore: has four 55MW generating units and a generation output of up to 220MW.[160] • Benmore: New Zealand's second largest hydro station after Manapouri; it has six 93MW generating units and a generation output of up to 552MW.[161] • Ōhau A: has four 66MW generating units, and a generation output of up to 264MW.[162] • Ōhau B: has four 53MW generating units with a generation output of up to 212MW.[163] • Ōhau C: a twin station of Ōhau B, with four 53MW generating units and a generation output of up to 212MW.[164] Waitaki: has seven 15MW generating units and a total generation output of 105MW.[165] Meridian owns six fully operational windfarms and one standalone turbine in New Zealand, along with two in development.[166] Meridian's operational New Zealand farms are in the following locations: • West Wind: this wind farm has 62 turbines which produce up to 142.6MW of electricity.[167] • Te Apiti: it can generate up to 90.75MW of energy.[168] • Te Uku: a 28-turbine wind farm located in Waikato. It generates up to 64.4MW of energy.[169] • Mill Creek: the 26 turbines generate up to 59.8MW of electricity. • White Hill: The wind farm's 29 wind turbines can generate up to 58MW of electricity.[170] • Brooklyn: a single turbine that can generate up to 225 kilowatts.[171] • Harapaki: this wind farm can generate 176MW from 41 turbines.[172] In terms of developments, Meridian has said that it plans to invest $3 billion this decade on renewable energy projects.[173] Meridian has announced further renewable development projects that will expand its generation portfolio, as described below: • Ruakākā Energy Park: development is underway on a new energy park, comprised of a battery energy storage system (BESS) and solar farm. The BESS has a storage capacity of 100MW and the solar farm, a generation capacity of 120MW. Construction on the BESS is expected to be completed in December 2024.[174] • Mt Munro: Meridian have proposed a 20-turbine wind farm and Mt Munro, which would produce approximately 300GWh annually.[175] • Te Rere Hau wind: this is a joint venture with NZ Windfarms to repower and extend the Te Rere Hau wind farm, which will have a generation capacity of 170MW.[176]

[160] https://www.meridianenergy.co.nz/power-stations/hydro/aviemore.
[161] https://www.meridianenergy.co.nz/power-stations/hydro/benmore.
[162] https://www.meridianenergy.co.nz/power-stations/hydro/ohau-a.
[163] https://www.meridianenergy.co.nz/power-stations/hydro/ohau-b.
[164] https://www.meridianenergy.co.nz/power-stations/hydro/ohau-c.
[165] https://www.meridianenergy.co.nz/power-stations/hydro/waitaki.
[166] Meridian also owns and operates a wind farm in Antarctica, the Ross Island Wind Farm, that powers the New Zealand Scott Base and the American base at McMurdo Station (https://www.meridianenergy.co.nz/power-stations/wind/ross-island).
[167] https://www.meridianenergy.co.nz/power-stations/wind/west-wind.
[168] https://www.meridianenergy.co.nz/power-stations/wind/te-apiti.
[169] https://www.meridianenergy.co.nz/power-stations/wind/te-uku.
[170] https://www.meridianenergy.co.nz/power-stations/wind/white-hill.
[171] https://www.meridianenergy.co.nz/power-stations/wind/brooklyn.
[172] https://www.meridianenergy.co.nz/power-stations/wind/harapaki.
[173] https://www.meridianenergy.co.nz/news-and-events/meridian-lifts-financial-performance-and-lays-foundation-for-future-growth.
[174] https://www.meridianenergy.co.nz/new-projects/ruakaka-energy-park.
[175] https://www.meridianenergy.co.nz/new-projects/mt-munro.
[176] https://www.meridianenergy.co.nz/new-projects/te-rere-hau.

	• Swannanoa solar farm: currently in the early stages of proposing a 200MW solar farm in the Canterbury region.[177]
Nova Energy	Nova Energy is both a generator and retailer of power and is a wholly owned subsidiary of Todd Corporation. Nova generates electricity both through natural gas plants, and recently, solar power.[178] Nova operates two natural gas power plants:[179] • The Junction Road Power Plant has a maximum capacity of 100MW. • The McKee Power Plant also has a maximum capacity of 100MW. Nova's solar power plant in Kapuni, which has a capacity of 2MW, was created in 2021 and has been used to gain knowledge and experience ahead of its upcoming project, the Rangitaiki Solar Power Plant. The Rangitaiki plant will have a maximum capacity of 400 MW. The project is currently at the resource consent stage.
Solar suppliers and developers In addition to the generators outlined above which have various solar investments, the following sections outline a few examples of the numerous solar energy suppliers and developers, which currently compete, or will compete, with Contact.	
Lodestone Energy	Lodestone Energy is solar generation company that is actively investing in solar projects in New Zealand. In February 2024, Lodestone Energy opened its first North Island solar farm, Kohirā which is located in Kaitaia, generating 57GWh annually[180] with a capacity of 33MW.[181] Lodestone has also recently completed an equity capital raise of $55 million[182], which is going to be used to finance the pre-construction activities of its second phase of agri-voltaic solar farms. Lodestone's Phase 2 programme is set to be larger in scale, with three confirmed South Island farms and additional sites expected to be announced this year.[183] Lodestone's Phase 1 and 2 combined, which consists of 12 solar farms in total, is estimated to represent about 2 per cent of New Zealand's total electricity market.[184]
Far North Solar Farm	Far North Solar Farm (**FNSF**) is a renewable energy asset developer based in Auckland.[185] FNSF is collaborating with German Investment firm Aquila Capital, with a portfolio of solar projects in development that could amount to 1GW of combined capacity once completed.[186] FNSF's development plans include seven sites in the North Island and four sites in the South Island. FNSF's first development, a 21MW farm at Pukenui, is expected to be switched on in early 2025. Its remaining developments are expected to be commissioned by 2028. FNSF is also looking to add batteries to several of its planned sites but has stated that the cost of battery storage will need to decrease further for this to be viable.[187]
Island Green Power	Island Green Power is an international solar developer which specialises in the development of utility-scale solar and battery plants. It has projects located around the world, including in the UK, Spain, Italy, Australia and New Zealand.[188] Island Green Power has two New Zealand projects,

[177] https://www.meridianenergy.co.nz/new-projects/swannanoa-solar-farm.
[178] https://www.novaenergy.co.nz/about-us/generation.
[179] https://www.novaenergy.co.nz/about-us/generation.
[180] https://lodestoneenergy.co.nz/lodestone-energy-starts-generating-power-at-new-zealands-first-utility-scale-solar-farm/.
[181] https://www.energetica-india.net/news/trina-solar-completes-kohira-solar-farm-with-lodestone-energy-in-new-zealand.
[182] https://www.nzherald.co.nz/business/solar-firm-lodestone-energy-completes-55-million-capital-raise/LZTEWHDRM5GURMLPDBQK4LGSVU/.
[183] https://lodestoneenergy.co.nz/lodestone-energy-officially-opens-first-north-island-solar-farm-kohira/.
[184] https://www.nzherald.co.nz/business/solar-firm-lodestone-energy-completes-55-million-capital-raise/LZTEWHDRM5GURMLPDBQK4LGSVU/.
[185] https://fnsf.co.nz/#AboutUs.
[186] https://reneweconomy.com.au/big-solar-on-a-roll-as-1gw-project-pipeline-firms-up-in-new-zealand/.
[187] https://businessdesk.co.nz/article/energy/2b-solar-farm-project-aims-to-generate-15-of-daytime-electricity.
[188] https://www.islandgp.com/about.

	the both being solar farms in the Waikato.[189] The first is projected to have a generation capacity of 146MW,[190] and the second 190MW.[191]
Harmony Energy Limited / First Renewables	Global renewable energy infrastructure developer, Harmony Energy Limited has entered into a joint venture arrangement with First Renewables Limited to develop and own Tauhei Solar Farm, which is expected to be New Zealand's largest solar farm at time of commissioning in 2026 with a nameplate capacity of 147MW,[192] generating over 270GWh per year.[193] Harmony Energy has also received fast-track resource consent for three further solar farms in Carterton (130MW), Ōpunake (100MW) and Marton (103MW) in the last two months.[194]
Helios Energy	Helios Energy is a result of a collaboration between renewable energy developers from the United States and New Zealand, focused on grid-scale solar developments. Helios has been developing a pipeline of approximately 1GW of grid-connected solar developments since 2020.[195] In September 2023, Helios Energy confirmed that it is seeking resource consent for a 300MW solar farm on the Maniototo Plain.[196] It also has three other solar projects ongoing.[197]
Solar Bay	Solar Bay forms part of the Energy Bay Group and is a privately funded Sydney based sustainable energy investor who is pursuing energy projects in New Zealand.[198] Ryman Healthcare has signed an agreement with Solar Bay to develop a solar farm in Northland. The solar farm will be built, owned and operated by Solar Bay on a site near Maungaturoto, and will produce 29.94 million kWh of energy which will be fed directly into the national grid in Northland.[199] Solar Bay has also reached an agreement with Massey University in relation to a solar farm to use on its Manawatu campus.[200]
Ranui Generation	Ranui Generation, based in Kerikeri, provides ready to build solar sites in New Zealand. Its current projects include Twin Rivers in Kaitaia which has been designed with nameplate capacity of approximately 30MW, Three Streams with nameplate capacity of 38MW, Skinner Road with nameplate capacity of 40MW, Tikokino with nameplate capacity of 55MW.[201]
Lightyears Solar	Lightyears Solar aims to build 200MW of solar PV farms in New Zealand.[202] It has completed its Waiuku Solar farm which is providing around 2.4MW of power to the local grid.[203] It has more solar projects in the pipeline, including a 7MW solar farm in Ashburton and a 4.5MW solar farm in Wairarapa.[204]
Wind suppliers and developers In addition to the generators outlined above which have various wind investments, below are some examples of other wind farm providers and developers, which compete with Contact.	
Pioneer Energy	Pioneer Energy, which has recently amalgamated with Southern Generation Limited Partnership, has a number of generation plants at various stages of development. It's generation assets include the following: Mt Stuart Wind Farm with a generating capacity of 7.65MW,[205] Flat Hill Wind Farm with a generation capacity of 6.8MW,[206] Horseshoe Bend Wind Farm with three

[189] https://www.stuff.co.nz/business/300858410/600ha-mega-solar-farm-in-waikato-set-to-power-70000-homes.
[190] https://www.islandgp.com/projects/rangiriri.
[191] https://www.islandgp.com/projects/waerenga.
[192] https://www.stuff.co.nz/business/300693453/hauraki-solar-farm-that-could-power-30000-homes-gets-green-light.
[193] https://clarus.co.nz/content-hub/harmony-energy-and-first-renewables-announce-joint-venture-for-the-development-of-new-zealands-largest-solar-farm.
[194] https://harmonyenergy.co.uk/harmony-energy-receives-green-light-for-two-solar-farms-in-new-zealand/.
[195] https://heliosenergy.co.nz/news/media-release-19-april-2022.
[196] https://heliosenergy.co.nz/news/media-release-21-september-2023.
[197] https://heliosenergy.co.nz/projects.
[198] https://www.nzherald.co.nz/northern-advocate/news/35-million-northland-solar-farm-to-power-all-retirement-village-companys-sites/XZX4OL7VW5E2LFBSOOK4K4DYEM/.
[199] https://www.nzherald.co.nz/northern-advocate/news/35-million-northland-solar-farm-to-power-all-retirement-village-companys-sites/XZX4OL7VW5E2LFBSOOK4K4DYEM/.
[200] https://www.stuff.co.nz/manawatu-standard/news/131290885/massey-university-in-deal-to-have-one-of-nzs-biggest-solar-farms.
[201] https://ranuigen.co.nz/projects/.
[202] https://www.nbr.co.nz/entrepreneurs/lightyears-solar-aims-for-200mw-of-solar-farms-in-next-5-years/.
[203] https://www.nzherald.co.nz/the-country/news/solar-farming-lightyears-solar-receives-15m-debt-facility-from-new-zealand-green-investment-finance/YJ76BI5G6BGBPHAUNPOOE3ZRUA/.
[204] https://www.nzherald.co.nz/the-country/news/solar-farming-lightyears-solar-receives-15m-debt-facility-from-new-zealand-green-investment-finance/YJ76BI5G6BGBPHAUNPOOE3ZRUA/.
[205] https://pioneerenergy.co.nz/projects-and-partnerships/sustainable-cities/mt-stuart-wind-farm/.
[206] https://pioneerenergy.co.nz/projects-and-partnerships/sustainable-cities/project-case-study-1/.

	turbines, each with 75MW maximum generation capacity,[207] Jericho Station with an expected generation capacity of 35MW,[208] and Kaihiku Wind Farm with an expected generation capacity of 300MW and up to 73 turbines,[209] Kaihiku Wind Farm, which is a joint venture between Pioneer Energy and Manawa, is currently at a development stage and has not yet received resource consent.[210] Further, Pioneer Energy has three hydro stations: Aniwhenua Hydro which generates 127 GWh annually,[211] Falls Dam Power Station which generates 8.6 GWh annually,[212] and the Fraser Scheme which generates 22 GWh annually.[213] For completeness, Pioneer Energy also has three thermal energy centres.[214]
NZ Windfarms	NZ Windfarms owns Te Rere Hau Wind Farm, which has nameplate capacity of 45.5MW.[215] In 2023, NZ Windfarms entered into a joint venture with Meridian to repower and extend this wind farm, which would increase the capacity up to 170MW.[216] It also has various other wind farms located throughout New Zealand.
Hiringa	The Kapuni Green Hydrogen Project involves the construction of four new wind turbines, which will supply renewable electricity directly to balance Agri-Nutrient's Kapuni site as well as supply electricity to the grid.[217] Additionally, this electricity will be used to produce green hydrogen by electrolysis that can be made at off peak times. The turbines are expected to be functional in Q3 2025.
MainPower	MainPower has been investigating options for renewable distributed generation in and around North Canterbury since 2004. It has built a mini-hydro station at Cleardale and gained resource consent for a wind farm at Mt Cass.[218] The proposed turbines at Mt Cass will be expected to be capable of producing 95MW of energy.[219] Construction is expected to begin in 2024.
Ventus Energy	Ventus Energy is an independent wind developer in New Zealand. It is developing various sites including the Glen Massey Wind Farm with a nameplate capacity of 150MW, Taumatatotara Wind Farm, Kaimai Wind Farm, Project M which is in a rural territory in the Upper North Island with a nameplate capacity of 176MW.[220]
LET Securities / Capital	LET Capital Number 3 Partnership is proposing to undertake the Waiuku wind farm, which would have an installed capacity of 80MW.[221]
Yinson Renewables	Yinson Renewables is a global renewable energy producer with a primary focus on onshore wind and solar. Yinson Renewables has a project pipeline in New Zealand including several wind projects in the early stages of investigation and development.[222] For example, there is a proposed wind farm near Pahiatua which would be owned by Yinson Renewables NZ and developed by project managers, Aurecon NZ.[223]
BlueFloat / Energy Estate / Elemental Group	BlueFloat Energy, Energy Estate and Elemental Group have partnered to develop offshore wind farms in New Zealand. BlueFloat Energy has announced plans for offshore wind projects up to

[207] https://www.pioneerenergyrenewables.co.nz/our-locations/horseshoe-bend-wind-farm.
[208] https://www.pioneerenergygroup.co.nz/jericho-wind-farm.
[209] https://www.pioneerenergygroup.co.nz/kaihiku-wind-farm.
[210] https://kaihikuwindfarm.co.nz/project-overview.
[211] https://www.pioneerenergyrenewables.co.nz/our-locations/aniwhenua-hydro.
[212] https://www.pioneerenergyrenewables.co.nz/our-locations/falls-dam-hydro.
[213]https://www.pioneerenergyrenewables.co.nz/our-locations/fraser-scheme.
[214] https://www.pioneerenergyrenewables.co.nz/our-assets.
[215] https://www.nzwindfarms.co.nz/.
[216] https://www.meridianenergy.co.nz/news-and-events/meridian-and-nz-windfarms-to-repower-and-extend-te-rere-hau-wind-farm.
[217] https://www.greenhydrogennz.com/.
[218] https://www.mainpower.co.nz/about-us/renewable-energy.
[219] https://www.mtcasswindfarm.co.nz/hello-world/. .
[220] https://ventusenergy.co.nz/wind-farms/
[221] https://environment.govt.nz/what-government-is-doing/areas-of-work/fast-track-consenting/waiuku-wind-farm/.
[222] https://www.yinson.com/highlights/YR-NZ-Update/.
[223] https://www.stuff.co.nz/manawatu-standard/news/133091232/proposed-pahatua-wind-farm-developers-consider-community-views.

	1.4GW in South Auckland and West Waikato[224], and is also looking to build a 900MW, 65-turbine, offshore wind farm in the South Taranaki Bight.[225]
Oceanex Energy	Oceanex Energy is planning up to three 1GW offshore wind farms, with 1GW each in Taranaki, Waikato and the Cook Strait.[226]
Energy3	Energy3 is a company involved in assessment and development of wind farm opportunities. It owns various small scale wind turbines and has also collaborated with various industry participants.[227]
Virtual Power Plants Virtual power plants are a new innovation, which is a collection of distributed small-scale energy resources (e.g. solar and batteries) which can be aggregated and coordinated to provide some form of reliability to the grid, similar to a traditional power plant.	
SolarZero	SolarZero has a network of more than 10,000 solar and battery units, which has the capacity to supply up to 26.5MW to the grid.Virtual power plants are considered a nascent innovationand which are likely to grow substantially over time as technology advances, allowing for much greater flexibility in the power system.[228]
Electricity Distribution Businesses Some electricity distribution businesses have also begun to invest in renewable generation developments and technologies. This investment is expected to increase following the Government's decision to ease restrictions on electricity distribution businesses (EDBs). EDBs are currently prohibited from owning generation assets of more than 50MW connected to their own network, and are also required not to own assets of more than 250MW connected to Transpower's network. The Government has agreed to ease these restrictions to increase electricity generation and bolster regional resilience.[229]	
WEL Networks	WEL Networks Limited (**WEL**) is an electricity distribution company, serving the northern and central Waikato region of New Zealand. WEL and Infratec commissioned New Zealand's first BESS, with a capacity of 35MW.[230] WEL and Infratec are also actively pursuing other opportunities, including solar farm options, to further enhance resilience and access to renewable power in the region.[231]
Top Energy	In 2021, Top Energy opened the Ngāwhā Geothermal Power Station (OEC4) near Kaikohe in the Far North, which is a 32MW geothermal power station, and supplements the existing 25 MW plant built previously. It is understood to be monitoring market conditions and reservoir performance to determine whether the next stage of the project, OEC5.[232]
Powerco	Powerco has announced two initiatives in Manawatu to investigate turning waste into pipeline-ready renewable gas.[233]

[224] https://www.bluefloat.com/major-investment-planned-to-develop-south-auckland-waikato-offshore-wind-industry/.
[225] https://www.bluefloat.com/project/south-taranaki/.
[226] https://oceanexenergy.com/projects/new-zealand-offshore-wind-farm/.
[227] https://www.energy3.nz/.
[228] https://newsroom.co.nz/2024/02/27/solar-virtual-power-plant-a-vision-of-a-future-zero-carbon-grid/.
[229] See: https://www.beehive.govt.nz/release/urgent-action-taken-bolster-energy-security and https://www.sciencemediacentre.co.nz/2024/08/27/changes-to-nzs-energy-sector-expert-reaction/
[230] https://www.infratec.co.nz/projects/nzbess.
[231] https://www.wel.co.nz/about-us/news/launch-of-new-zealands-first-utility-scale-battery-energy-storage-system-bess/.
[232] https://topenergy.co.nz/tell-me-about/news/ng%C4%81wh%C4%81-geothermal-power-station-official-opening.
[233] https://gasnz.org.nz/news/powerco-announces-renewable-gas-projects.

Appendix 20 – National retail electricity market – Key competitors

Company	Overview of Operations
Genesis	Genesis Energy is a generation and retail electricity company that provides a range of services to customers, including electricity, gas, solar and an electric vehicle plan.[234] Genesis has a broad customer base, supplying electricity to over 550,000 customers across New Zealand through two retail brands, Genesis and Frank Energy as at July 31 2024.[235] Frank Energy, formerly Energy Online, was acquired by Genesis in 2002.[236] Genesis also has a 70% shareholding in Ecotricity – a electricity retail company offering carbon friendly electricity to New Zealanders.[237]
Mercury	Mercury also provides a range of retail service offerings to its customers, including electricity, gas, broadband and mobile. In 2022, Mercury acquired Trustpower's retail business.[238] In addition, Mercury owns Globug, which is a pre-paid electricity provider. [239] As of July 31 2024, Mercury supplies energy to almost 580,000 customers nationwide.[240]
Meridian	Meridian owns Powershop, an electricity retailer that was founded in 2009. Combined, Meridian and Powershop provide services to 368,000 customers nationwide (as of July 31 2024).[241]
Electric Kiwi	Electric Kiwi is an electricity retailer founded in 2015 and wholly-owned by The Energy Collective, a global retail energy and technology business.[242] As of July 31 2024, Electric Kiwi powers 65,000 homes and businesses in New Zealand through its electricity service offering.[243] Electric Kiwi is a significant participant in the hedge market through Haast Energy Trading.
Nova Energy	Nova Energy, part of Todd Corporation, is a retailer of electricity, broadband, natural gas and mobile plans. Nova Energy also has a solar buy-back program, whereby it purchases solar energy produced by customers at a rate of 10 cents per kWh.[244] As of July 31 2024, Nova services over 91,000 customers across New Zealand.
Flick Electric	Flick Electric is an electricity retailer which is ultimately owned by Z Energy.[245] Flick is in partnership with Z Energy to support the use of electric vehicles. As of 31 July 2024, Flick has over 40,000 customers nationwide.[246]
Pulse Energy	Pulse Energy is a community owned electricity retailer that supplies electricity, gas and broadband, servicing over 77,000 customers nationwide (as at July 31 2024).[247]
Slingshot / 2degrees	Slingshot launched in 2001 as a broadband company and has since expanded to supply over 56,000 customers as of July 31 2024 across certain parts of the country with electricity. Additionally, Slingshot provides mobile services to its customers through

[234] https://www.genesisenergy.co.nz/for-home/products.
[235] https://www.emi.ea.govt.nz/Retail/Reports/R_MST_C?DateFrom=20240701&DateTo=20240731&_si=v|3.
[236] https://comcom.govt.nz/news-and-media/media-releases/archive/genesis-cleared-to-acquire-energy-online.
[237] https://ecotricity.co.nz/ecotricity-and-genesis-join-forces-to-deliver-100-newrenewable-energy-future.
[238] For more information, see https://www.mercury.co.nz/.
[239] For more information, see https://www.globug.co.nz/.
[240] https://www.emi.ea.govt.nz/Retail/Reports/R_MST_C?DateFrom=20240701&DateTo=20240731&_si=v|3.
[241] https://www.emi.ea.govt.nz/Retail/Reports/R_MST_C?DateFrom=20240701&DateTo=20240731&_si=v|3.
[242] https://thecollective.energy/about-us. See also: https://app.companiesoffice.govt.nz/companies/app/ui/pages/companies/7265416/shareholdings.
[243] https://www.emi.ea.govt.nz/Retail/Reports/R_MST_C?DateFrom=20240701&DateTo=20240731&_si=v|3.
[244] For more information, see https://www.novaenergy.co.nz/electricity/electricity-plans.
[245] https://www.stuff.co.nz/business/131833900/z-energy-takes-full-ownership-of-flick-after-mopping-up-minority-shareholders#:~:text=Australian%2Downed%20fuel%20company%20Z,5%25%20of%20the%20electricity%20retailer.
[246] https://www.emi.ea.govt.nz/Retail/Reports/R_MST_C?DateFrom=20240701&DateTo=20240731&_si=v|3.
[247] https://www.emi.ea.govt.nz/Retail/Reports/R_MST_C?DateFrom=20240701&DateTo=20240731&_si=v|3.

	its ultimate owner 2degrees.Since 2022, Slingshot have been bundling electricity with its broadband offering.[248]

[248] https://www.2degrees.nz/media-releases/2degrees-enters-power-market.