NZIER
NEW ZEALAND INSTITUTE OF ECONOMIC RESEARCH

Gentailer retail margin disclosure

What does it tell us?

NZIER report to Consumer Advocacy Council

May 2024

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Authorship

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Summary

Electricity gentailers and excess profits

The core research question addressed in this report is: do new rules requiring disclosure of retail gross margins and gentailers' internal transfer prices shed light on whether the major electricity companies are making excess profits?

In this section, we provide a summary of our findings about the adequacy of the disclosure rules. The body of the report provides the analysis to supports our findings.

Background

In its 2019 report, the Electricity Price Review (EPR) recommended rule changes to shed light on whether, and the extent to which, vertically integrated gentailers were making excess profits.

In response to this recommendation, in August 2021 the Electricity Authority (EA) mandated the disclosure of internal transfer prices (ITPs) by gentailers and retail gross margins by retailers.

The Consumer Advocacy Council commissioned this research from NZIER to answer the following questions:

- Are the disclosure rules providing adequate information?
- Is the approach to analysis undertaken by the EA, particularly the use of a range of benchmark ITPs, appropriate?
- Are any changes needed to disclosure rules or the analytical approach to ensure consumers have robust information on whether gentailers are making excess profits?

What we found

1. ITP disclosure rules are not providing adequate information

Disclosure of **internal transfer prices** by gentailers can show how these companies allocate cost, revenue and risk between their wholesale generation activities (which include trading in the spot market) and their retail businesses.

However, the current disclosure regime is unlikely to indicate whether generation revenue is excessive.

This is because revenue is not compared with a model of generator costs and profitability in a workably competitive market, or the costs and profitability of generators that are not vertically integrated (with a similar mix of assets).

Instead, transfer prices between wholesale and retail markets are calculated using averages of futures baseload contract prices on the Australian Stock Exchange. These averages are nominated by gentailers and generally historic.

In the absence of information about generators that are not also retailers,[1] it is difficult for a transfer price disclosure regime to cast light on whether wholesale prices reflect those expected in workably competitive markets or whether transfer prices conceal differences in risk management opportunities available to gentailers and independent retailers.

2. ITP benchmarks used by the EA are difficult to interpret

The EA compares the ITPs disclosed by gentailers against a range of benchmarks. However, we found the EA's benchmark analysis is difficult to interpret.

The benchmarks include a variety of averages of futures prices. These seem to have little value in the comparison as the EA does not express a view on the appropriate average of futures prices for retail operations.

Further, futures prices are not a good indicator of actual spot prices or the estimated costs and risks of supplying electricity to different market segments. Using averages also smooths the adjustment of retail prices to both volatility and trends.

We have not found any comment by the EA on why the benchmarks were chosen or what alternative pricing strategy they are expected to represent.

3. Retail margin disclosure is more useful, but still limited

Disclosure of **retail gross margins** by electricity retailers provides an indication of whether gentailers and independent retailers face a similar or different cost structure for the wholesale cost of electricity.

If a series of data was available for multiple years, it would provide an indication of how well independent retailers had been able to manage the mismatch between the volatility of spot wholesale prices and retail prices compared with gentailers.

However, gross margin data are disclosed for one year only (2022), which was a relatively volatile period in the spot wholesale market. It is therefore difficult to draw conclusions about trends in wholesale prices or margins for independent retailers.

Margin data disclosed for 2022 do not provide confirmation that independent retailers can access the same structure and level of wholesale pricing and risk management that gentailers extend to their retail businesses.

4. Consumers need better information to assess gentailers' profits

While changes could be made to improve existing disclosure rules, there are limitations on the use of ITPs and retail gross margins to assess whether gentailers' profits are excessive. The disclosure of ITPs and retail gross margins alone cannot show whether or not gentailers are making excess profits.

5. EA review needs to consider alternatives

The EA plans to carry out a post-implementation review of the disclosure rules. This review should consider the additional analysis and disclosure requirements that would be needed to give consumers reliable information about whether the profits being made by gentailers are excessive.

[1] The sale by Trustpower of its retail business to Mercury has occurred too recently to provide a clear-cut indication of the difference in 'transfer pricing' between gentailers and specialist generators.

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1 Introduction

1.1 About this report

Profits made by electricity gentailers and whether they are excessive has been, and continues to be, a regular subject of debate.

In its final report in 2019, the Electricity Price Review (EPR) recommended rule changes to shed light on whether, and the extent to which, vertically integrated gentailers were making excess profits.

The EPR report stated:

> *Generator-retailers are considered by some to be making excessive profits and favouring their retail arms to undermine competition, but we lack the information to properly test this belief. At a minimum, expanded reporting will fill the information gap that fosters suspicion and undermines market confidence. If there is a real competition problem that requires correcting, separate reporting should help uncover it* [2]

In response to the EPR's recommendation, in August 2021 the Electricity Authority (EA) mandated the disclosure of internal transfer prices (ITPs) by gentailers and retail gross margins by retailers.

The Consumer Advocacy Council commissioned this report from NZIER to answer the following questions:

- Are the disclosure rules providing adequate information?
- Is the approach to analysis undertaken by the EA, particularly the use of a range of benchmark ITPs, appropriate?
- Are any changes needed to disclosure rules or the analytical approach to ensure consumers have robust information on whether gentailers are making excessive profits?

1.2 Report structure

Section 2 of this report presents our analysis of the disclosure rules and discusses other information published by gentailers about their ITPs and retail margins.

Section 3 outlines our key findings on the current disclosure rules and offers suggestions for how they could be improved.

1.3 Research approach

Our findings are primarily based on analysis of the ITP and retail margin disclosure data published by the EA. The authority provided us with some additional information on the disclosure process that informed our understanding but was not material to answering the research question.

[2] 'Electricity Price Review, HIKOHIKO TE UIRA, FINAL REPORT 21 May 2019 ', p45.

The EA advised it is completing a post-implementation review of the disclosure regime but could not provide an indication of when this review would be published.

As part of our background research, we also talked to the Commerce Commission about complaints made by independent retailers concerning gentailers' pricing. The commission said it had conducted inquiries into the complaints but declined to investigate.

We also reviewed independent retailers' submissions on gentailer pricing and the disclosure regime.

Explanation of key terms

Gentailer: Most of the electricity used in New Zealand is generated by four companies: Meridian, Mercury, Genesis and Contact. These companies not only generate electricity but also sell (retail) it directly to customers. The term gentailer is a contraction of generator-retailer. A fifth company, Trustpower, was a gentailer but sold its retail business to Mercury in 2022. Trustpower was renamed Manawa Energy and is now a generator only.

Wholesale market: Generators sell electricity and retailers buy electricity in the wholesale market at a price called the **wholesale spot price**, which is set in half-hour periods. The spot price can fluctuate unpredictably from near zero to more than $0.50 per kilowatt hour (kWh) based on factors ranging from dry weather to gas shortages and equipment failure.

Retailers: Retailers absorb the fluctuations in the wholesale spot price and offer their retail customers an average electricity-only price of about $0.10 per kWh (according to information disclosures shown in Table 1 and Table 4). Other costs such as electricity transmission and distribution, metering, retailer margins and GST took this price up to $0.30 per kWh for domestic consumers for the 2018 to 2022 period covered by the ITP disclosures examined in this report.

Independent retailers: These are businesses that sell electricity to consumers but do not generate it themselves and therefore must buy it from a gentailer or generator. Independent retailers generally cannot pass on wholesale spot price volatility to consumers because most consumers want contracts with a fixed price per kWh. Therefore, the terms (price, volume and exposure to spot wholesale price fluctuation) on which independent retailers can buy electricity from generators determines their ability to be profitable and compete with gentailers in the retail electricity market.

Transfer price: This is the price at which gentailers 'sell' the electricity they generate to their own retail business. It is not the same as the spot wholesale price and is not directly linked to average spot wholesale prices (see Table 1). Each gentailer has its own method of calculating its transfer price (see Table 2) but the values are similar (Table 1). All gentailers' transfer prices are based on averages of futures market prices.

Futures market: Gentailers, generators and retailers use this market to partially protect themselves from the financial risks that can be caused by fluctuations in the wholesale spot price**.** They do this through **futures contracts**, which are contracts to buy or sell a set amount of electricity at a fixed price over a set period, usually a calendar quarter (contract quarter) that starts sometime in the future. At the end of the contract quarter, each contract is 'settled' between the buyer and seller with a money payment based on the difference between the fixed contract price and the average spot price over the contract quarter. The settlement does not involve the physical supply of electricity. These contracts are issued by the Australian Stock Exchange (ASX) and are called 'ASX Baseload Calendar Quarter Futures' or 'ASX Baseload Monthly Futures'.

Futures market prices: From the time the futures contract is set to the last day before the start of the contract quarter, a futures contract can be bought and sold on the ASX. The gentailers use averages of the prices at which these contracts are bought and sold (before the start of the contract quarter) as the main component of their internal transfer price (ITP). There are differences between gentailers in the methods they use to calculate the average and the adjustments they make to the average. However, the resultant ITPs are similar for each gentailer in any given year and change much more gradually than spot prices over time.

2 Disclosure information

2.1 ITP disclosure

The EA has published the internal transfer prices as calculated and disclosed by each generator for 2017/18 to 2021/22 (Table 1). Data include ITPs for Manawa Energy, which traded as Trustpower until its retail business was sold to Mercury Energy in 2022.

Since 2017/18, the average ITP for gentailers has increased by about 25%. However, most of this increase occurred over 2020/21 and 2021/22.

The range for the ITP within any given year is generally within +/- 7 percentage points of the average.

Table 1: ITPs published by the EA

All prices in $ per MWh for year ended 30 June

Gentailer	2017/18	2018/19	2019/20	2020/21	2021/22
Contact	84.12	81.08	87.51	91.92	107.55
Genesis	80.16	83.53	84.40	87.30	111.16
Manawa	83.79	85.37	89.91	97.20	101.60
Mercury	88.00	88.00	89.00	99.00	104.00
Meridian	76.83	75.82	81.17	88.55	99.62
Simple average	**82.58**	**82.76**	**86.40**	**92.79**	**103.79**
Range as % of average					
Minimum	-7.0%	-8.4%	-6.1%	-5.9%	-4.6%
Maximum	6.6%	6.3%	4.1%	6.7%	7.1%
Wholesale spot: GWAP[1]					
One year average	85.41	130.94	98.71	178.01	140.47
Three-year average		90.57	105.05	135.94	139.12

Note:

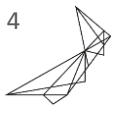
1 Generated weighted average price (GWAP) is calculated as generator revenue divided by generation as reported by the EA in its EMI dataset under Wholesale category / Reports /Generation Trends available at www.emi.ea.govt.nz

Source: NZIER analysis of EA data from 'Retail datasets, Internal transfer pricing' at https://www.emi.ea.govt.nz/Retail/Datasets/InternalTransferPricing.

2.2 Main observations

Our main observations on the ITP data published by the EA are:

- The internal transfer prices are similar across the gentailers in each year and have not altered materially over the past five years. This similarity is not surprising, as transfer prices are calculated on the same basis. However, it is surprising that ITPs have not altered materially given the volatility of both spot wholesale prices and futures prices over the past five years.



- Four of the five gentailers base their transfer price on a simple average of ASX futures prices over the past three years with some variation in the periods chosen within the three-year period. Mercury appears to be the only gentailer to use a forward-looking average, based on futures prices for the next three years.
- Locational, shape and seasonal factors are used by four of the five gentailers in their ITP methodologies. However, the impact of these factors is not significant compared with the average of the ASX futures price. These variable factors account for less than 10% of the ITP.
- All gentailers describe the ITP in the same terms – as a notional accounting transfer tool to shift short-term management of price volatility to the wholesale segment and allow a long-term view of the profitability of the retail segment.[3]
- Mercury is the only one of the five gentailers to report a discretionary adjustment. At $-13 per MWh, it is the largest of any of the adjustment factors applied by the gentailers. The discretionary adjustment changes Mercury's ITP from the highest of the gentailers to middle-of-the pack.

As part of the ITP disclosure, the EA has published responses by each of the gentailers describing the methodology they use to calculate the ITP and their response to part 13.256(3) of the Electricity Industry Participation Code (which sets out the ITP information required from gentailers).

These responses and examples for 2022 are summarised in Table 2. Some gentailers provide examples of the calculations and data used. It would improve the quality of the disclosure if the EA could publish the actual ASX futures prices used by gentailers in their calculations. This would help clarify the meaning of the descriptions in the methodology.

2.2.1 Wholesale price volatility

The wholesale spot generation weighted average price (GWAP) listed in the last three rows of Table 1 shows average spot prices are higher than the transfer prices used by gentailers (averages of futures prices are described in Table 2).

This suggests independent retailers entering the market from 2018/19 onwards, or experiencing material growth in customer numbers over this period, would be at a substantial price disadvantage if their cost of electricity was set on spot prices or they were not able to construct the same type of hedging as that used by gentailers for their transfer pricing.

In addition, the annual changes in the three-year GWAP do not fully illustrate the increased volatility of spot prices. Quarterly average spot prices were particularly high (above $150 per MWh) in 2018 Q4, 2019 Q1, 2021 Q1, 2021 Q2, 2022 Q1, 2022 Q2[4] and the first three months of 2024.

[3] Meridian's description of its ITP methodology is a good example of the descriptions given by the gentailers. It states the methodology "simulates a 'book build' process that is reflective of the long-term nature of the relationship between wholesale and retail segments. If independent retailers continually transacted through an equivalent book build process, we anticipate they would see a similar effective price to Meridian's ITP price". Meridian comment on compliance with Electricity Industry Participation Code 2010 - Part 13 in 'Meridian Energy - FY22 ITP disclosure.xlsx, Sheet 1, D6. The use of the term "book build" is unusual in this context. It normally refers to a process of discovering demand prices in segments and then using this process to set a price when a supply target is met.

[4] These are calendar years and quarters. Q1 is 1 January to 31 March, Q2 is 1 April to 30 June, Q3 is 1 July to 30 September and Q4 is 1 October to 31 December.

These high prices generally occurred in summer and autumn rather than winter quarters and were related to a shortage of available (rather than built) generation capacity driving extremely high spot prices for some trading periods. All quarters, except 2022 Q2, had prices above $250 per MWh for at least 10% of the half-hour trading periods in the quarter.

Increased use of intermittent generation (wind and solar) will increase the risk of price spikes from sudden loss of capacity. The effect on spot prices is asymmetric because they can only fall to zero when there is excess capacity but can increase toward the consumer value of lost load, which can be thousands per MWh, particularly if the shortage is likely to be brief (one or two trading periods).

Table 2 Internal transfer price calculation

Process used for 2022 calculation

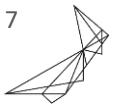
Component	Contact[1]	Genesis[1]	Manawa[1]	Mercury[1]	Meridian
Base	Otahuhu and Benmore 'Base Quarter' ASX contracts. Three years of daily trades ending three months prior to the start of the quarter. The FY22 ITP is the load-weighted average of each quarter.	Otahuhu and Benmore ASX contracts. Three-year average[2] of the ASX futures prices for the relevant period (e.g. FY2022) over the 90 days preceding the date of the ITP calculation.	Average of futures prices in November for the past three years.	Average SSP (internally derived price path) prices at Otahuhu for the next three years forward start by 2 quarters, i.e. 1 January 2022 to 31 December 2024. Base price Otahuhu node (OTA2201).	An ITP for each quarter is calculated as the average of daily ASX futures prices set at Benmore and Otahuhu for that quarter over the past three years. The ITP is calculated one quarter prior to the year (i.e. FY22 ITP is calculated in Q4 FY21).
	$101.60 per MWh.	$105.32 per MWh	$95.42 per MWh	$106 per MWh	Not stated
Adjustment factors	Monthly adjustment factor to reflect difference from quarterly average: $0.69 per MWh. Day adjustment for business vs non-business days: $0.07 per MWh. Trading period factor: $3.89 per MWh.	Shape adjustment (based on several years of spot price history to convert monthly prices to typical business day and non-business day half-hourly prices): $6.41 per MWh.	Shape adjustment based on reference nodes at Huntly, Haywards and Benmore.	Mass market profile. An 8% uplift from base load equivalent price to reflect the time of use (TOU) profile of a mass market customer: $8.00 per MWh. Plus, a 5% uplift to reflect losses: $5.00 per MWh. **Management discretion: $-13.00 per MWh.**	Each quarterly price is shaped into a monthly price, using 20-year profiles of wholesale spot prices.
	Location factor: $1.30 per MWh.	Location factor: $-0.73 per MWh and Locational hedging: $0.16 per MWh.	Location factors by individual node.	Location factor: $-2.00 per MWh.	
ITP	$107.55 per MWh.	$111.16 per MWh.	$101.60 per MWh.	$104 per MWh.	$99.62 per MWh.

Notes:

2 Contact, Genesis, Manawa and Mercury all refer specifically to 'monthly ITP' prices.

3 Genesis uses a rolling three-year hedging approach so that the most recent ASX futures forward prices will contribute only 33% to the ITP in any given year. This reflects the market practice of partially hedging future year volumes and reduces volatility between financial years.

Source: NZIER analysis of disclosures to the EA. See 'Retail datasets, ITP disclosures for financial years ending in 2022' available at https://www.emi.ea.govt.nz/Retail/Datasets/InternalTransferPricing/2022.



2.3 ITP benchmarks used by the EA

The EA compares the ITPs disclosed by gentailers to the following benchmarks:

- Benchmark 1: Average hedge prices 4, 16 and 28 months prior to target financial year
- Benchmark 2: Average hedge prices 1, 13 and 25 months prior to target financial year
- Benchmark 3: Average hedge prices for three quarters, one, five and nine (quarters) prior to the target financial year
- Benchmark 4: Average of all hedge prices (overall average)
- Benchmark 5: Average hedge prices for 12 quarters to the quarter prior to the target financial year
- Benchmark 6: Average hedge prices for the quarter prior to the target financial year
- Benchmark 7: Average hedge prices for a month, one quarter prior to the target financial year
- Benchmark 8: Minimum of monthly hedge prices (overall minimum)
- Benchmark 9: Maximum of monthly hedge prices (overall maximum).

Most of these benchmarks do not reflect the ITP calculation method used by gentailers and therefore do not provide a clear and simple comparator for 'benchmarking' ITP calculations against an expected alternative. We have not found any comment by the EA on why the benchmarks were chosen or what alternative hedging strategy the benchmarks are expected to represent.

Seven of the EA's benchmarks use averages of futures prices. However, the authority does not express a view on the appropriate average of futures prices for retail operations. Moreover, futures prices are not a good indicator of the actual spot prices or the estimated costs and risks of supplying electricity to different market segments.

The reliance on averages smooths the adjustment of the retail prices to both volatility and trends. Over most of the period from 2018, the wholesale market has been characterised by:

- upward steps in the cost of generation due to a series of supply shocks and a shortage of controllable capacity
- a tendency for wholesale future prices to indicate an expectation that spot prices will remain at or above current levels.

Table 3 shows the number of times the EA benchmark is 'within +/- 5% of ITP', '5%-10% above or below ITP' or 'more than 10% above or below ITP'. This provides an indicator of whether the EA benchmark and ITP seem to be moving together.

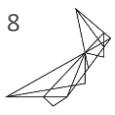


Table 3 EA benchmark compared with ITP

Number of times benchmark is within the stated band for five gentailers over five years

Benchmark	Within +/- 5% of ITP	'5%-10% above or below ITP'	More than 10% above or below ITP'
1	7	7	11
2	6	10	9
3	7	6	12
4	12	8	5
5	6	6	13
6	3	2	20
7	4	2	19
8	0	0	25
9	0	0	25

Source: NZIER analysis of data extracted from EA ITP benchmark data. See 'ITP benchmarks by Electricity Authority' available at https://public.tableau.com/app/profile/electricity.authority/viz/ITPbenchmarks/ITPbenchmarks/ .

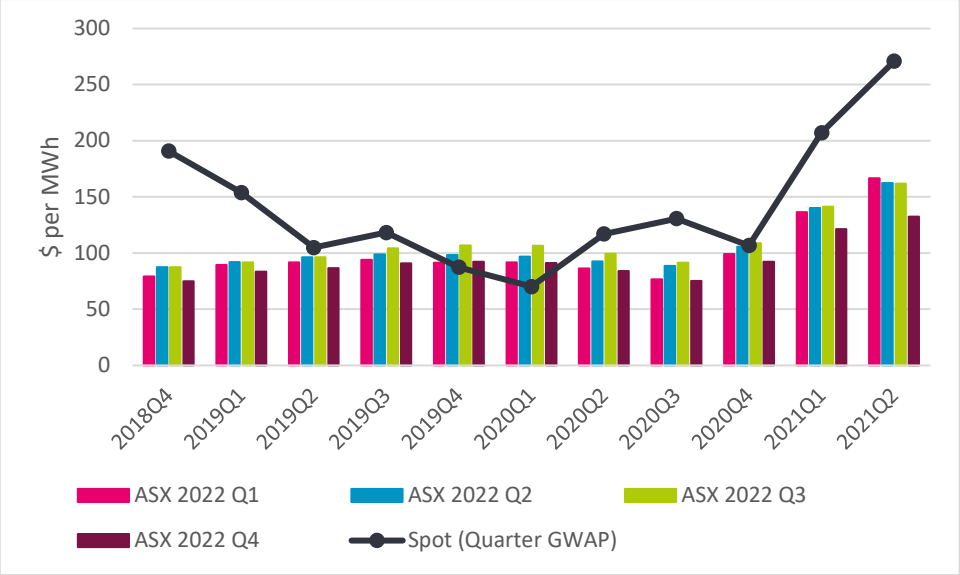
Our key observations are:

- **Benchmark 4: Average of all hedge prices**, which should be the closest to the methodology used by the gentailers, is within +/- 5% of the ITP for just under half the disclosures.
- **Benchmark 5: Average hedge prices for 12 quarters to the quarter prior to the target financial year**, which is also similar to the calculation method used by the gentailers, is within +/- 5% of the ITP for about a quarter of the disclosures.
- **Benchmarks 1 and 2** use methods that would only be expected to deliver similar results to the gentailer ITP methodology if futures prices changed slowly so that the months chosen were representative of the daily averages used by the four gentailers that use averages of historic prices.
- **Benchmarks 6 and 7** use a much shorter averaging period than that used by the gentailers and are within +/- 5% of the ITP for less than one-sixth of the disclosures.
- **Benchmarks 8 and 9** are always more than 10% above or below the ITP.

2.4 Outlook for ITP

As noted above, the ITP for four of the five gentailers is calculated using historic averages of ASX futures prices. Assuming this methodology is continued, gentailer ITPs will rise sharply over the next two to three years as historical ASX futures prices below $100 per MWh are replaced by current average prices, which are around $150 per MWh (Figure 1).

Figure 1 Quarterly average futures and spot prices



Source: NZIER

In addition to the upward pressure on the average level of the ITP, independent retailers are likely to be more exposed to upside wholesale spot price risk as the share of intermittent generation increases.

2.5 Retail gross margin disclosure

All retailers with at least one percent market share are required to disclose their retail gross margin. The retail gross margins disclosed to the EA for 2022 are shown in Table 4 and Figure 2.

Our key observations about this data are:

- Meridian Energy (assuming the data is correct) offers the lowest retail energy price of both gentailers and independent retailers (and has a relatively low ITP).
- Independent retailers' wholesale electricity costs are similar to or lower than the range quoted by gentailers.
- Both independent retailers and gentailers are reporting wholesale electricity costs below average spot wholesale prices,[5] suggesting independent retailers have access to hedging or supply contracts that insulate them from spot wholesale prices.
- Independent retailer prices are within the range of average retail prices offered by gentailers.

Comparison (Figure 2) of the wholesale electricity cost and retail margin for gentailers and independent retailers does not indicate (at least for 2022) the clustering that would be expected if the wholesale cost and retail margins were different for gentailers and independent retailers. For example, if:

[5] Comparisons between independent retailer reported wholesale cost and average spot prices are hindered by the lack of information on independent retailer balance dates.

- gentailers' results were in the bottom right quadrant of Figure 2 (high wholesale prices/low retail margins), this could suggest a 'margin squeeze' by gentailers
- independent retailers were in the bottom right quadrant of Figure 2 (high wholesale prices/low retail margins), or gentailers were in the top left quadrant of Figure 2 (low wholesale prices/high retail margins), this could suggest 'two-tier' wholesale pricing by gentailers.

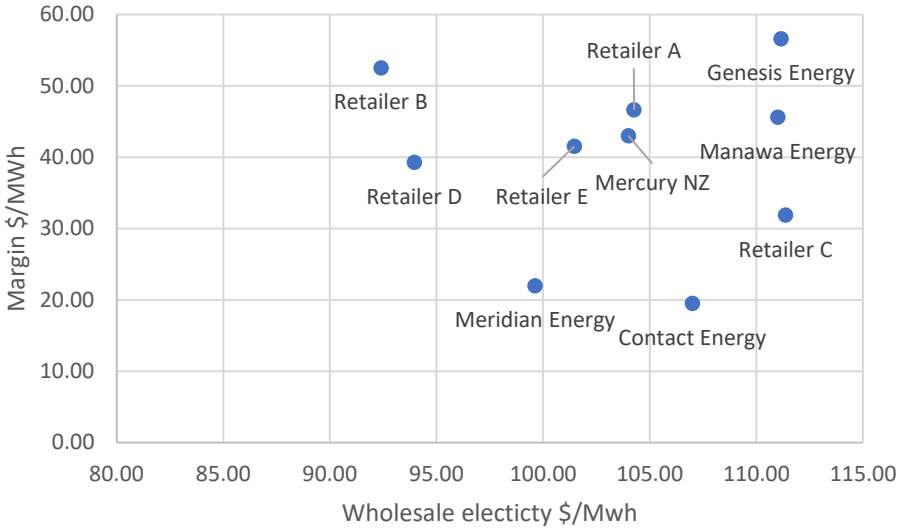
Table 4 Retail margins for gentailers and independent retailers in 2022

All prices in $ per MWh. Volume in MWh

Participant	Electricity $/MWh	Metering $/MWh	Distribution $/MWh	Levies $/MWh	Margin $/MWh	Revenue $/MWh	Volume MWh
Contact Energy	107.00	12.30	95.40	1.10	19.50	235.30	3,689,000
Genesis Energy	111.16	10.86	101.32	1.09	56.57	281.00	3,877,258
Manawa Energy	111.00	14.00	105.00	0.43	45.57	276.00	1,819,000
Mercury NZ	104.00	14.00	100.00	1.00	43.00	262.00	2,870,000
Meridian Energy	99.62	9.62	93.76	1.12	21.96	226.08	3,305,361
Retailer A	104.26	15.41	95.56	1.18	46.64	263.05	not disclosed
Retailer B	92.40	12.00	84.00	1.10	52.50	242.00	not disclosed
Retailer C	111.37	13.25	90.22	1.19	31.86	247.89	not disclosed
Retailer D	93.96	10.70	87.98	1.85	39.25	233.74	not disclosed
Retailer E	101.46	15.29	101.99	1.10	41.52	261.36	not disclosed

Source: NZIER analysis of EA data from, 'Retail gross margins for financial year ending in 2022.xlsx' available under the heading 'Retail datasets, Retail gross margins' at https://www.emi.ea.govt.nz/Retail/Datasets/RetailGrossMargins.

Figure 2 Retail margins are not well correlated with wholesale prices in 2022



Source: NZIER presentation of EA data shown in Table 4.

2.6 Other sources of ITP and retail margin information

In their annual reports, gentailers publish other information on the allocation of costs and revenue between their retail and wholesale segments. Their operating reports provide information on the volume of electricity supplied and average prices.

However, in these reports they use different groupings of customers and different terminology to calculate average prices. The examples that are closest in format and scope to the EA disclosures are described below.

2.6.1 Transfer prices disclosed in annual reports

Genesis has disclosed ITPs in its annual report since at least 2018. Meridian disclosed its ITPs in 2022 and 2023 but in both cases, these cover a broader group of customers than apparently covered by the disclosure to the EA.

The ITPs disclosed by Genesis for 2018 to 2022 and the ITP disclosed by Meridian for 2022 are similar, but not identical, to the ITP disclosure provided to the EA. These results are listed in Table 5.

In their annual and operating reports, the gentailers provide information that allows calculation of the average energy cost for their entire 'fixed price variable volume' (FPVV) customer base, rather than the retail segment covered by the EA ITP disclosure. The former is a broader group of customers.

The ITP disclosure rules seem to leave gentailers with discretion to define the retail or mass market segment to which the rules apply. Under the Electricity Industry Participation Code, mass market customers are defined as:

> *all those customers of a generator retailer or retailer who the generator retailer or retailer classifies as mass market or who are commonly understood to be mass market customers in accordance with standard industry practice.*[6]

[6] Electricity Industry Participation Code 2010, p50.

Table 5 ITP disclosed and reported by generators

EA disclosure compared with annual report data for Genesis and Meridian ($ per MWh)

Gentailer and ITP source	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Genesis (EA)	80.16	83.53	84.40	84.40	111.16	
Genesis (Annual Report) [1,2 and 3]	78.97	83.01	85.97	90.73	106.56	124.73
Meridian (EA)	76.83	75.82	81.17	88.55	99.62	
Meridian (Annual Report)[4]					93.00	104.00

Notes:

1 Sales between segments are based on transfer prices developed in the context of long-term contracts. The electricity transfer price per MWh charged between Wholesale and Retail was $83.01 (2018: $78.97). GENESIS ANNUAL REPORT 2019, A2. Segment reporting, page 74

2 The electricity transfer price per MWh charged between Wholesale and Retail was $90.73 (2020: $85.97). GENESIS ANNUAL REPORT 2021/NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS A3. Segment reporting, Intersegment revenue, page 56

3 The electricity transfer price per MWh charged between Wholesale and Retail was $124.73 (2022: $106.56) (Genesis Integrated Annual Report, page 70). The 'retail' segment includes *'Residential customers, Small & Medium Enterprises, Large Businesses and customers of Frank Energy'*.

4 Wholesale segment at an average annual fixed (transfer) price of $104 per megawatt hour (MWh) (2022: $93 per MWh). The transfer price is set in a similar manner to transactions with third parties. Meridian Integrated Report 2023, A: Financial performance, page 203. Electricity sold to residential, business and industrial customers on fixed price variable volume contracts is purchased from the Wholesale segment at an average annual fixed price of $88 per megawatt hour (MWh) and electricity sold to business and industrial customers on spot (variable price) agreements is purchased from the Wholesale segment at prevailing wholesale spot market prices. Meridian Integrated Report 2023, A: Financial performance, page 123.

Source: NZIER analysis of Genesis and Meridian reports. Data for Genesis (EA) and Meridian (EA) is from EA data 'Retail datasets, Internal transfer pricing' at https://www.emi.ea.govt.nz/Retail/Datasets/InternalTransferPricing.

2.6.2 Gross margins estimated from operating and annual reports

Contact (Table 6) and Genesis (Table 7) both provide sufficient granularity in their operating and annual reports to provide some of the key information (average retail price and volume of energy supplied) included in the retail gross margin disclosure for 2022.

Contact

Contact's average retail prices and retail margins seem to be low in comparison with other gentailers. However, its measures of wholesale electricity costs (ITP disclosed to the EA and 'Energy cost') are similar. Therefore, the Contact gross margin data is not fully consistent with the independent retailer claim that gentailers are applying a margin squeeze.

Table 6 Contact gross margin reporting

Contact operating report.[1] Prices and costs in $ per MWh

Description	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Electricity sales (GWh)	3,648	3,533	3,523	3,380	3,442	3,481
Average sales price	242.25	244.40	244.45	247.88	252.50	269.20
Energy cost	74.20	75.61	81.62	87.03	101.34	121.20
'Direct pass thru costs'	118.38	119.08	117.60	111.68	117.99	121.39
Cost to serve[2]	18.36	18.53	18.20	19.52	16.14	16.50
Implied gross margin[3]	*31.31*	*31.18*	*27.03*	*29.65*	*17.03*	*10.11*

Note:

1 Extracted from Contact Monthly Operating Reports for June 2019, June 2021 and June 2023. The description of 'Energy cost' in the 2019 report includes the words '(electricity and gas)'.

2 'Cost to serve' is described as direct operating cost to serve customers' and excludes allocation of head office costs.

3 The '*Implied gross margin'* is calculated by NZIER from data reported in the Contact Operating Reports and is not included in the Contact Operating Reports. The calculation is Average sales price minus (Energy cost plus 'Direct pass thru costs' plus Cost to serve)

Source: NZIER

Contact's segment reporting in its annual report produces similar estimates of average sale prices and 'direct pass thru costs' but different estimates of 'Energy costs' to those listed in its monthly operating reports.

Genesis

Genesis discloses average sale prices and output volume by retail segment sub-group in its operating reports. The total revenue for the retail segment sub-groups in the operating reports reconciles with the revenue reported for the retail segment in Genesis' annual reports.

Genesis' retail gross margin reporting seems to combine the 'Residential' and 'SME' sub-groups of the retail segment. Unfortunately, Genesis' reports only provide 'energy purchase' and 'network, transmission, levies and meters' costs for the retail segment rather than the retail segment sub-groups.

Table 7 Genesis retail gross margin reporting

Figures from Genesis' operating and annual reports.[1] Prices and costs in $ per MWh.

Description	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Residential sales (GWh)	3,088	3,012	3,017	2,903	2,877	2,903
SME sales (GWh)	1,081	1,064	1,093	1,072	1,000	968
Total sales (GWh)	**4,076**	**4,110**	**3,975**	**3,877**	**3,871**	**4,076**
Residential sale price	252.26	257.68	263.17	265.62	271.19	276.00
SME sale price	216.66	222.27	217.62	219.77	236.13	251.00
Average sale price	**243.03**	**248.44**	**251.06**	**253.25**	**262.15**	**269.75**
Retail segment[2]						
Sales (GWh)	5,980	6,067	6,244	6,241	5,806	5,663
Average sale price	*205.82*	*207.45*	*212.43*	*212.83*	*222.18*	*237.75*
Energy purchase price			90.90	95.58	112.28	131.45
Delivery cost price[3]			90.76	79.46	87.19	92.16
Energy & delivery price[4]	*170.92*	*173.50*	*181.66*	*175.04*	*199.47*	*223.61*
Implied gross margin[5]	*34.90*	*33.95*	*30.77*	*37.80*	*22.72*	*14.14*

Note:

1 Calculated from Genesis Annual Reports for June 2019, June 2021 and June 2023 (which provided expenditure) and Genesis Quarterly Operating Reports for June 2019, June 2021 and June 2023 (which provided annual totals of the volume of electricity supplied).

2 The '*Retail segment*' comprises the 'residential', 'small and medium enterprise (SME)' and commercial and industrial (C&I)'segments.

3 '*Delivery cost price*' is shorthand for 'network, transmission, levies and meters' cost.

4 '*Energy & delivery price*' is the sum of '*Energy purchase price*' and '*Delivery cost price*'. These were reported separately from 2020/21 onwards.

5 The '*Implied gross margin'* is calculated by NZIER from data reported in the Genesis Quarterly Operating and Annual Reports and is not included in the Genesis Quarterly Operating and Annual Reports. The calculation is '*Average sale price'* minus '*Energy & delivery price'.*

Source: NZIER

Mercury reports mass market revenue in its annual report and mass market sale volumes and a price per MWh (excluding lines, metering and fees) in its operating report. We have not been able to reconcile the revenue calculations from the annual and operating reports and therefore have not been able to use this data to estimate retail margins.

Meridian reports:

- contracted retail revenue excluding distribution costs (from sale of electricity on FPVV contracts to residential, business and industrial consumers)
- a single average retail contracted price for all FPVV contract customers.

Comment on gross retail margin and ITP information sources

Gentailers' operating and annual reports could provide an earlier and more comprehensive measure of ITP and gross retail margins than the current EA disclosure process by covering the narrowly defined retail market (usually residential and SME) and the other segments of the FPVV market that have similar hedging risks.

Analysis of the data reported for the FPVV market suggests that ITPs for commercial and industrial consumers are being adjusted towards recent future and spot wholesale prices more quickly than the ITPs for the narrowly defined retail market but still with a lag.

A better understanding of how the ITP rules (and implied gentailer hedging) vary between small and large FPVV (defined as 'retail' in gentailer reporting) would give a better understanding of the type of contracting arrangement independent retailers could expect from gentailers.

Looking at gentailers' results from a more general FPVV perspective suggests much more of a rise in wholesale revenue and fall in retail margins for the gentailers than is apparent from the limited data available on retail gross margins for the narrowly defined retail market.

Mercury and Manawa – the missing result on ITP

The sale of Trustpower's (now Manawa) retail business to Mercury provides a test of how the gentailer allocation of price risk between retail and wholesale responds to major change in consumer volumes.

Mercury has increased its mass market volume sales by 50 percent (from 2,870 GWh to 4,352 GWh) and its FPVV volume sales by 32 percent (from 5,105 GWh to 6,749 GWh). The 2023 ITP and retail gross margins have not yet been published. We have not been able to use Mercury's annual and operating reports for 2023 to answer this question because we cannot reconcile the reported revenue.

However, it is difficult to see how the type of gradual book building based on future prices described in the Mercury ITP methodology could have occurred for this acquisition. Similarly, Manawa is now free of the risk management issues of its retail business and is looking to maximise its returns as a standalone generator. The sale contract between Mercury and Manawa may well have included multi-year supply and purchase contracts.

3 Key findings and recommendations

3.1 ITPs do not provide adequate information for assessing gentailer profits

The EA's disclosure of gentailers' ITPs for the June years 2018 to 2022 does not provide an adequate approach for indicating whether gentailers are making excessive profits. There are two main reasons for this:

- The transfer prices between the wholesale and retail markets are calculated using averages of ASX futures baseload contract prices that do not fully reflect the costs and risk of matching generation to retail demand or the wholesale prices that would be delivered by a workably competitive market. The averages are nominated by gentailers and generally historic rather than forward-looking.
- It is not clear if independent retailers can obtain wholesale electricity supply at the ITP. The ASX contracts do not involve physical delivery of energy. Some gentailers claim[7] they are prepared to supply electricity to third parties at a similar price to the disclosed internal transfer price. Independent retailers claim they cannot obtain hedge products that match their demand profile and that they are overexposed at peak periods. It is not possible to verify, let alone quantify either claim.

The existing disclosure rules can only point to the accounting decisions made by gentailers about splitting income between their wholesale generation and retail arms.

They do not provide any information on whether the wholesale prices used to recover generation costs represent outcomes from a competitive market. The implicit assumption is that the wholesale futures market is the clearing house for future wholesale supply arrangements, but there is no clear evidence that this is the case.

The rules also allow gentailers to define the length of the period over which they calculate the averages of wholesale prices and over which time period the wholesale prices are set.

3.2 Retailer revenue and cost disclosure for 2022 is more useful than ITPs

The comparison of retail revenue and costs for 2022 is more informative than the ITP disclosure (assuming the numbers are correct). It shows:

- gentailers' retail prices range from 0 to 24 percent above the lowest price of $226.08 per MWh offered by Meridian
- independent retailer prices range from 3 to 16 percent above the lowest price of $226.08 per MWh offered by Meridian
- some independent retailers had wholesale prices lower than those for gentailers.

However, the retail gross margin data is disclosed for one year only, which was a relatively volatile period in the spot wholesale market. It is difficult to draw conclusions about trends in wholesale prices or margins for independent retailers.

[7] For example, 'The transfer price is set in a similar manner to transactions with third parties', Meridian Integrated Report 2023, 'New Zealand Retail' p202.

3.3 Changes are required to provide consumers with robust information

The disclosure of ITPs and gross retailer margin alone cannot show whether or not gentailers are making excessive profits.

For consumers, the analysis and benchmarks provided by the EA are not easy to understand or apply to their comparison of retailer offerings because they do not clearly include transmission and distribution costs.

Improvements to the current disclosure regime could be made by focussing disclosure on the average retail price and components of the retail price (the 2022 retail gross margin disclosure rather than the historic ITP and the EA ITP benchmarks).

The usefulness of the ITP and retail gross margin data could also be improved by publishing it earlier. The ITP data published by the EA is similar to data published by gentailers in their operating reports and segment reporting. Therefore, arguably, information similar to that disclosed by the EA is already available earlier.

The EA plans to carry out a post-implementation review of the disclosure rules. This review should consider changes needed to:

- provide robust information on whether gentailers' profits are excessive
- ensure consumers have accessible and timely information.