



**Dr John Small**

Chair  
Commerce Commission  
Level 9  
44 The Terrace  
Wellington 6011

Via email: s9(2)(a)

28 July 2023

Dear Dr Small,

### **Electricity market competition problems**

I am writing to raise concerns regarding competition problems in the electricity market and a suspected breach of sections 27 or 36 of the Commerce Act.

I know your deep understanding of the electricity sector will mean you appreciate the seriousness of our complaint, and will refer it to Commission staff for investigation. We would be happy to discuss any aspect of our complaint with the Commission if it would assist that investigation.

### **Octopus Energy experience in the New Zealand electricity market**

Octopus Energy Group operates in electricity markets around the world. We have established a reputation for providing excellent customer service and delivering market leading innovations that will enable a decarbonised energy future and keep prices down for consumers.

Electricity is a necessity that contributes to every household's cost of living, it is also an increasingly essential ingredient in New Zealand's economy as we work to decarbonise it. As a result it's critical that competition in the electricity market is effective.

Competition plays an important role in keeping prices down for end consumers and spurring innovation in the electricity sector.

We have established an electricity retailer in the New Zealand market, however we have observed that gentailers have created a margin squeeze which prevents sustainable entry and growth.

Essentially, the wholesale electricity prices offered by gentailers are significantly above the implied internal transfer prices at which they supply their own retail business.

Gentailers supplying their internal retail business on prices and terms more favourable than what they offer to the market has had the effect of substantially lessening competition in the retail market, and is likely to continue to do so. Artificially high wholesale prices undermine the cost-effectiveness of the non-gentailer retailers who have historically driven innovation and customer switching, eliminating the need for a competitive response from gentailers.

In this letter we set out our view on the market and provide some of the publicly available information that may assist the Commission in commencing an investigation.

### **Market overview**

The supply of electricity is highly concentrated and dominated by gentailers: Contact Energy, Genesis Energy, Meridian Energy and Mercury Energy.<sup>1</sup> It has been noted that these parties have significant market power Meridian for example were pivotal 90% + of the time over recent years.<sup>2</sup> This is discussed in the extract below from a recent Electricity Authority paper:<sup>3</sup>

<sup>1</sup> We note that although Manawa Energy has sold its retail electricity business, its hedging arrangements with Mercury Energy and Commercial/Industry business means its capacity is unlikely to be available in the foreseeable future.

<sup>2</sup> See for example Electricity Authority, Review of structure, conduct and performance of the Wholesale Electricity Market, October 2021 at p4.

<sup>3</sup> Electricity Authority, Promoting competition in the wholesale electricity market in the transition toward 100% renewable electricity' 2022

### Industry structure is relatively concentrated

- 2.12 Electricity generation is relatively concentrated. Four large vertically integrated generator-retailers supply over 80% of generation to the market (Table 2). There has been little change to concentration in the past 8 years.<sup>19</sup>

**Table 2 Generation in New Zealand: key characteristics 2022**

	Contact	Genesis	Meridian	Mercury	Manawa	Other	Total
Total capacity MW	2,023	2,023	2,784	1,565	658	1,050	10,100 MW
Thermal MW	801	1203	-	-	-	398	2,402 MW
Stored hydro MW	760	185	2350	1105	-	0	4,400 MW
Market share generation	19.5	18.1	30.2	18	6.1	8.1	100%
Market share retail	19.7	21.6	16.3	25.9	0.6	15.9	100%
Vertical integration	76.5	86.4	78.6	92.1	-	-	

Source: Electricity Authority

Notes: 'Stored hydro' refers to Lakes Taupo, Waikaremoana, Tekapo, Pukaki, Hawea, Te Anau and Manapouri. Generation units downstream of these lakes are classified as stored hydro. Market share of generation is based on injection. Market share of retail is based on number of ICPs as of May 2022. Vertical integration is mean value for year ended May 2022. Vertical integration is based on sales and purchases of MWh, ignoring derivative markets. [https://www.emi.ea.govt.nz/Wholesale/Reports/BLKL4U?\\_si=vj3](https://www.emi.ea.govt.nz/Wholesale/Reports/BLKL4U?_si=vj3)

- 2.13 In addition, these four generator-retailers are frequently gross pivotal – that is, demand in a trading period would not be able to be met without their supply. Meridian is gross pivotal most of the time (historically around 77%, though it increased to 90-95% in the review period). While short-term incentives depend on generators' position net of retail and contracts, long-term incentives are to use market power to increase future prices for contracts and retail customers.

Consistent with this, Electricity Authority analysis has noted a number of potential indications of market power, including high Lerner Index and evidence of economic withholding of electricity offers.<sup>4</sup> This may not be surprising to the Commission, given the views it expressed on the market power of the gentailers as far back as 2009.

Octopus considers that not only has this market power endured for a significant period, but it is likely to grow stronger in the future. The Electricity Authorities Market Development Advisory Group has recently confirmed the potential for the shift to 100% renewable electricity to provide larger generators who have substantial flexible generation resources with greater means and incentive to exercise market power.<sup>5</sup>

### ***Wholesale electricity market is not working effectively***

All electricity retailers buy energy off the NZEM pool, but this is highly volatile. In order to manage the energy price risk non vertically integrated retailers (independent retailers) purchase secondary contracts and financial derivatives.

The market for New Zealand energy futures is the ASX, but participants can also engage in “over-the-counter” contracts with gentailers.

It’s relevant to note that credit support is dealt with through clearing arrangements where margin needs to be posted with an ASX clearing provider, so a counterparty trading an energy future is not exposed to meaningful credit risk. Or for over the counter arrangements credit terms are typically negotiated alongside the contract. Therefore, while having a robust balance sheet is an appropriate condition for a party to enter into the wholesale and futures markets, credit exposure is not a valid justification for including a material price/risk premium into wholesale energy offer prices.

Pricing a retail offering involves taking into account a forward view of electricity prices over the expected duration of the contract with the customer. A prudent approach to risk management involves buying electricity contracts months/ years in advance (and potentially for longer terms), where volatility is less pronounced, and prices aren’t as greatly affected by the current spot situation.

The ASX exchange for New Zealand Energy futures has unfortunately been inaccessible by independent retailers and major industrial customers since 31 October 2022. As a result of the global energy crisis following the Russian invasion of Ukraine, some clearing providers for the ASX, who are typically large trading banks such as Macquaries, BNP Paribas, ABN Amro, exited the market and others were unwilling to take on new customers. Jarden’s, who was the local access provider for most independent retailers and some industrials, was no longer able to act as a trading agent.

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<sup>4</sup> Electricity Authority, Review of structure, conduct and performance of the Wholesale Electricity Market, October 2021 at p6-7.

<sup>5</sup> MDAG Price discovery in a renewables-based electricity system: Options Paper, 2 December 2022, at 3.53 – 3.57. The competition analysis is available online.

As a result of this access to the ASX has been foreclosed to many as other access providers are not prepared to take on new business. This fundamentally undermines the market and has meant over the counter trading is the only trading option for risk management. In contrast to an exchange, over the counter contracts have the disadvantages of time and effort to negotiate, are generally priced at a premium to ASX futures when buying, and cannot be traded anonymously.

As a consequence, in October 2022, the Electricity Authority published an open letter, noting that market participants faced restrictions on their ability to access exchange traded New Zealand electricity futures.<sup>6</sup> It subsequently sought information on off-market offers, and to date its response has been to announce it was considering an industry-led working group on the issue.<sup>7</sup> To date this working group has made no meaningful progress in establishing fluid and fair alternative arrangements to the ASX.

An alternative approach to risk management would be to build generation and vertically integrate. The requirement to enter generation in order to enter retail electricity is a significant barrier to entry. As we expect the Commission is aware, there are significant barriers to investment in new generation. First, the process of consenting under the Resource Management Act is expensive, time consuming and uncertain. Second, without a functioning wholesale electricity market to sell into the risk profile is challenging. Third, incumbent generators have built pipelines of the prime sites and there are limited independent generation assets or sites available for purchase. Fourth, generation development will involve land that could be impacted by overseas investment rules. Finally, requiring investment in vertical integration raises an unfortunate barrier to entry, as outside of risk management there are limited operational synergies between retailing (customer service, marketing and data management) and generation (building, operating and maintaining a physical asset).

The barriers to entry are greatest for the kinds of renewable energy that offer significant flexibility and might constrain market power of gentailers, such as hydro and geothermal. Entry into solar and wind generation, on the other hand, would not avoid the need for significant wholesale arrangements.

As illustrated below<sup>8</sup>, long dated futures costs remain significantly higher than the cost of building new supply (~\$90MWh) despite the pipeline of new renewable generation.

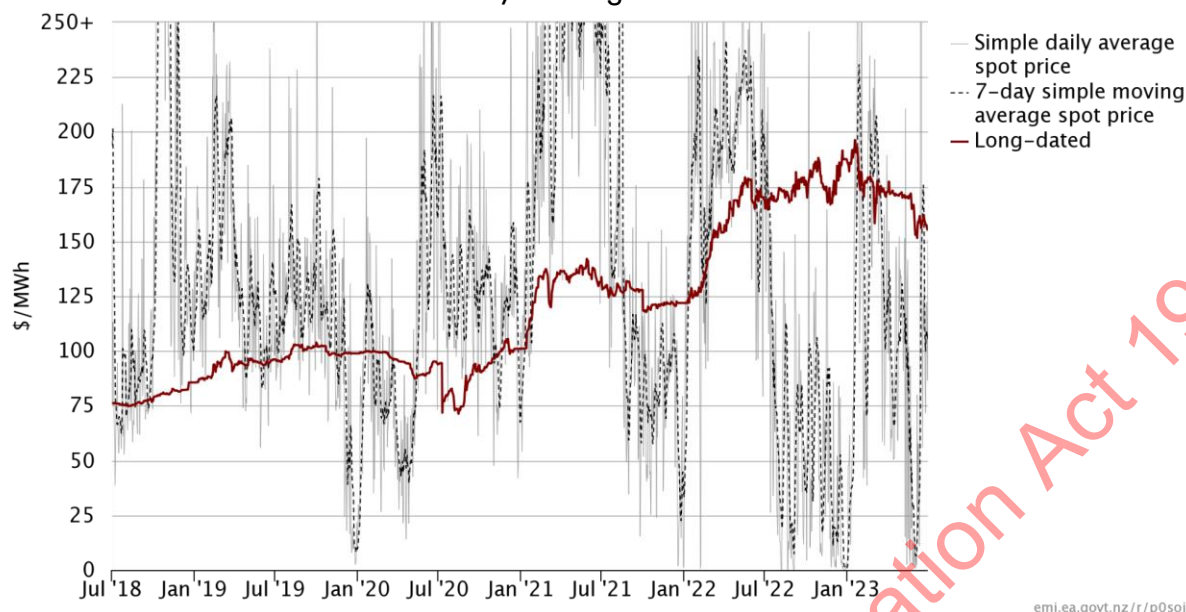
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<sup>6</sup> Electricity Authority, Open Letter to Market Participants, 18 October 2022

<sup>7</sup> Electricity Authority, Open Letter to Market Participants, 12 December 2022

<sup>8</sup> [www.emi.ea.govt.nz/Forward%20markets/Reports/KOP4VM?\\_rsdr=L60M&DateFrom=20180701&DateTo=20230630&\\_si=v|3](http://www.emi.ea.govt.nz/Forward%20markets/Reports/KOP4VM?_rsdr=L60M&DateFrom=20180701&DateTo=20230630&_si=v|3)

This reflects inherent barriers to entry in the generation market.



### Increasing wholesale prices raise costs and create a margin squeeze

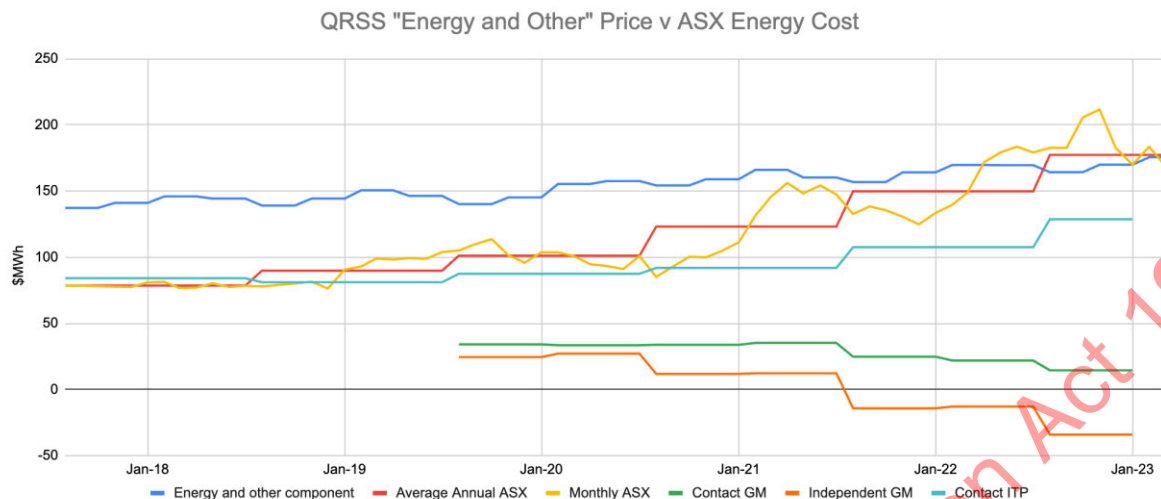
The chart below illustrates that at the prevailing wholesale prices, retail electricity market margins are negative. The best indication of current retail prices is MBIE's Quarterly Residential Sales Survey (QRSS) that collects information from all retailers. We have used the most recent published data, from December 22. We have utilised Contact Energy data as a means of comparison because they are the most transparent. We expect that if similar data was available from other Gentailers it would illustrate a margin squeeze as well.

To briefly explain the chart:

- The QRSS 'energy and other component' (Blue) represents the average retail price excluding network charges which are highly variable by location.
- Monthly ASX (Yellow) is the long dated baseload price of Otahuhu energy futures adjusted by location, profile, demand and seasonal factors to calculate an equivalent internal transfer price (ITP).
- Average annual long dated ASX (Red) is the above but averaged for the relevant financial year (12 months Jul-Jun).
- Contact GM (Green) is the reported gross margin for Contact Energy, they are the gentailer with the highest ITP.
- Contact ITP<sup>9</sup> (Cyan) published by the EA, with the latest 6 months from their 1H23 results.
- Independent GM (Orange) is Contact Energy's gross margin recalculated for illustrative purposes using the average annual long dated ASX.

<sup>9</sup> <https://public.tableau.com/app/profile/electricity.authority/viz/ITPbenchmarks/ITPbenchmarks>





As can be seen from the graph, the ASX prices (Yellow and Red) are considerably above Contact's internal transfer price (Cyan), and since mid 2022 ASX prices have exceeded or matched the *retail* price (Blue). This is despite the retail price also needing to cover metering, retail cost to serve and levies. Contact's reported gross margin has declined, and an independent gross margin has been negative for some time.

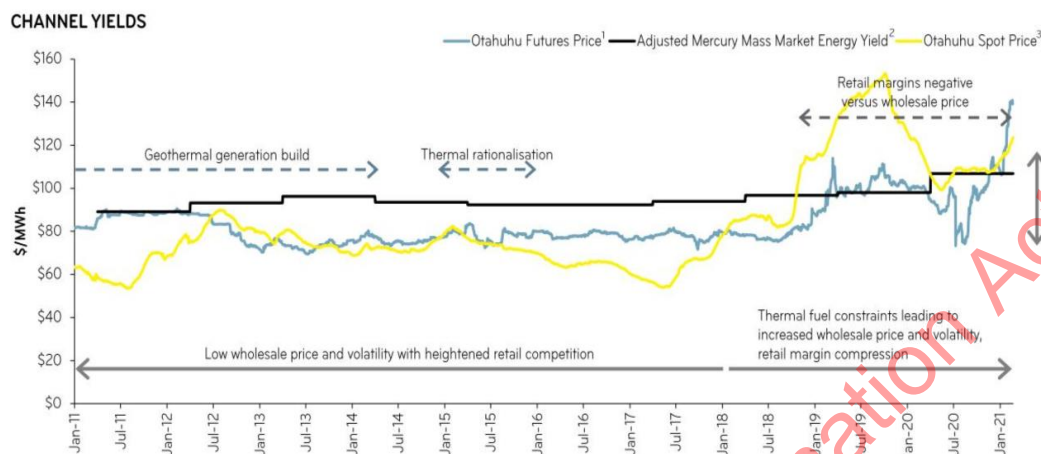
It's relevant to note the observations of the Electricity Price Review that incumbent gentailers benefit from a disengaged segment of customers who they typically charge significantly higher prices to. On this basis the gross margin of the competitive segment of the market will be significantly less than a gentailer's average gross margin.<sup>10</sup>

This margin squeeze is not a new phenomenon in the market; it has persisted over the last five years, and has been commented on by incumbent players. In our view the competitive dynamic of the wholesale market broke following the Pohokura outages in late 2017.

<sup>10</sup> Electricity Price Review, First Report, page 36: 42% of the market have never switched, discussion about price dispersion.

As illustrated in the chart below from Mercury Energy, the current situation contrasts with positive retail margins pre 2018.

## RETAIL MARGIN COMPRESSION WITH SUSTAINED ELEVATED WHOLESALE PRICES



- > Prices supported in the near-term by Tiwai Point aluminium smelter contract extension and in the longer-term by Climate Change Commission draft advice report endorsing electrification to meet emissions targets
- > Market responding to strong price signals with recent generation development announcements

8 Source: ASX, WITS  
<sup>1</sup> Two-year forward price starting three quarters ahead  
<sup>2</sup> Adjusted for indicative average losses, profile and cost to operate  
<sup>3</sup> Rolling 12-monthly average



Contact's financial reports show that, although still positive, there has been a continual decline in retail margins.

## Retail segment

Residential electricity	unit	1H20	1H21	1H22	1H23
Average connections	#	355,216	357,756	367,199	381,222
Sales volumes	GWh	1,328	1,349	1,408	1,445
Average usage	MWh per ICP	3.7	3.8	3.8	3.8
Tariff	\$/MWh	248.2	251.1	251.5	261.4
Network, meters and levies	\$/MWh	-122.5	-116.2	-115.9	-118.2
Energy costs	\$/MWh	-91.6	-101.1	-110.8	-128.7
<b>Gross margin</b>	<b>\$/MWh</b>	<b>34.1</b>	<b>33.8</b>	<b>24.8</b>	<b>14.5</b>
Gross margin	\$ per ICP	141	127	95	55
Gross margin	\$m	50	45	35	21

### Reported internal transfer pricing and margin data support margin squeeze

We have endeavoured to gather retrospective information on the internal transfer prices used by gentailers from their annual reports and the EA's reporting. However this information has its limitations because the EA does not require reporting based on a standard methodology. There are also differences between the ITP's reported in annual reports versus the submission to the EA. Finally it is relevant to note that some gentailers have suggested that the ITP is a simply a reporting construct and not used in practice as the basis for retail pricing.<sup>11</sup>

<sup>11</sup> Meridian Energy made written and verbal submissions to the Electricity Authority to this effect that pricing decisions were made independently of consideration of the ITP.



The ITP's are summarised in the table below. This data shows the internal transfer prices have grown at a far higher rate than retail tariffs as represented by the QRSS\* (Residential sales-based electricity survey Mar23). This points to margin compression in itself. ASX prices have grown faster than internal transfer prices, over the same period. This now results in a substantial negative margin for independent retailers who buy derivatives via ASX or OTC (where the ASX is used as the benchmark for pricing).

EA ITPs	FY18	FY19	FY20	FY21	FY22	H1FY23	Change since FY18	
Contact	84.12	81.08	87.51	91.92	107.55	128.70	153%	
Genesis	80.16	83.53	84.40	87.30	111.16	120.95	151%	
Mercury	88.00	88.00	89.00	99.00	99.00	118.15	113%	
Meridian	76.83	75.82	85.37	88.55	99.62	104.00	135%	
Manawa	83.79	85.37	88.91	97.20	101.60	109.00	130%	ave spot energy generated (12 months Mar 23)
<b>Straight Average EA ITP</b>	<b>82.58</b>	<b>82.76</b>	<b>87.04</b>	<b>92.79</b>	<b>103.79</b>	<b>116.16</b>	141%	
Average Adjusted Annual ASX	78.55	89.83	101.19	123.12	149.80	177.35	226%	
QRSS (Energy and other component)	142.17	145.09	149.59	159.89	165.09	169.91	120%	

Given the forward looking nature of retail electricity prices it is also relevant to look at current retail prices advertised on Powerswitch<sup>12</sup> and compare this against the current forward curve. As of 19 July the cheapest Gentailer across the largest networks of Auckland, Wellington and Auckland happened to be Contacts Good Night plan. The calculated energy cost using a low 'Retail costs and margin' of ~\$24MWh would appear to give a cost in the vicinity of \$100MWh for new customers. The ASX forward curve for the next 3 years is over \$150MWh at Otahuhu and around \$120MWh at Benmore.

	Auckland \$/MWh (ex GST)	Wellington \$/MWh (ex GST)	Christchurch \$/MWh (ex GST)	Average
<b>Retailer Cost</b>	239.46	239.24	200.77	226.49
<b>Networks</b>	97.39	90.00	84.35	90.58
<b>Metering</b>	13.25	13.25	11.78	12.76
<b>EA</b>	1.60	1.60	1.60	1.60
<b>GM- Retail Costs &amp; Margin</b>	25.00	25.00	22.22	24.07
<b>Cost of Energy</b>	102.22	109.39	80.83	97.48

It is interesting to compare this ~\$100MWh acquisition energy cost back to the most recent accounts energy cost of \$128.70MWh. This also shows the significant benefit of having a large, unengaged incumbent customer base which allows cross subsidising between the engaged and unengaged customer segments.

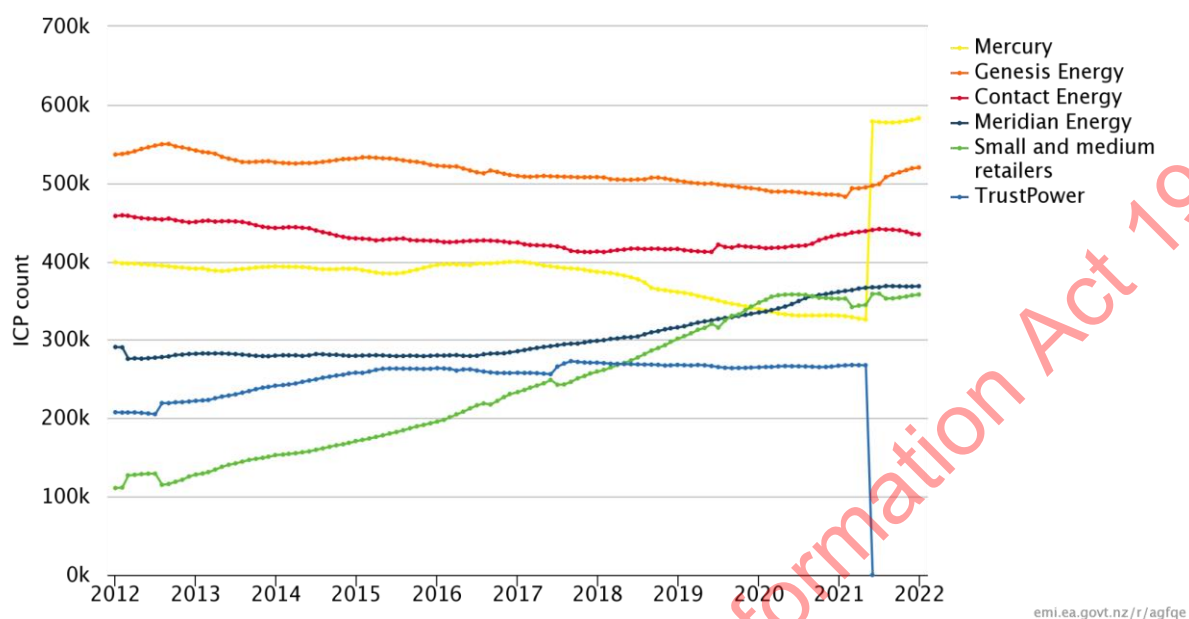
### Negative impact on retail competition

Octopus is concerned that the margin squeeze is having a negative impact on competition in the retail market. We see negative changes across a range of publicly observable metrics, such as market share, customer switching, and market exit. We expect that an investigation would find other metrics, such as advertising spending and the development of innovative offerings, are also likely to be affected.

<sup>12</sup> Powerswitch annual cost at 8000kWh / 9000kWh in Christchurch

### Market share of independent retailers has plateaued

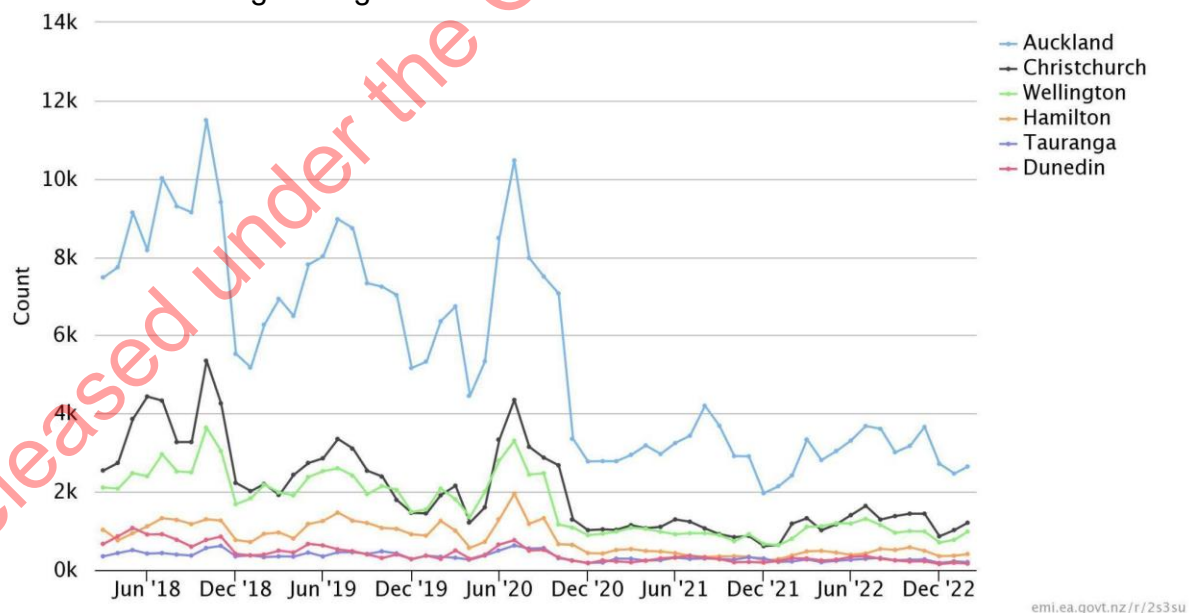
Independent retail firms were able to grow market share pre 2020, but their market share has plateaued since (green line).



The inability of independent retailers being able to compete and make sustainable margins is reducing price competition for consumers. As a result there has been a significant and sustained decline in 'trader' switches<sup>13</sup>. This is illustrated in the charts below.

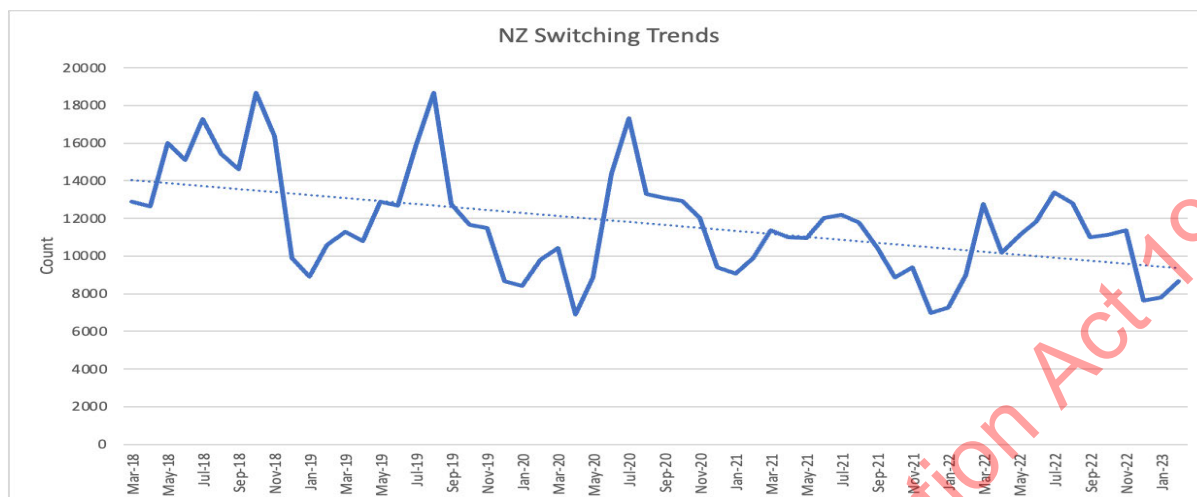
### Customer Switching has significantly decreased

Customer switching has significant declined since late 2020<sup>14</sup>:



<sup>13</sup> Trader switches are where a consumer chooses to switch retailer as opposed to a move in switch which is initiated by a new customer moving into a property.

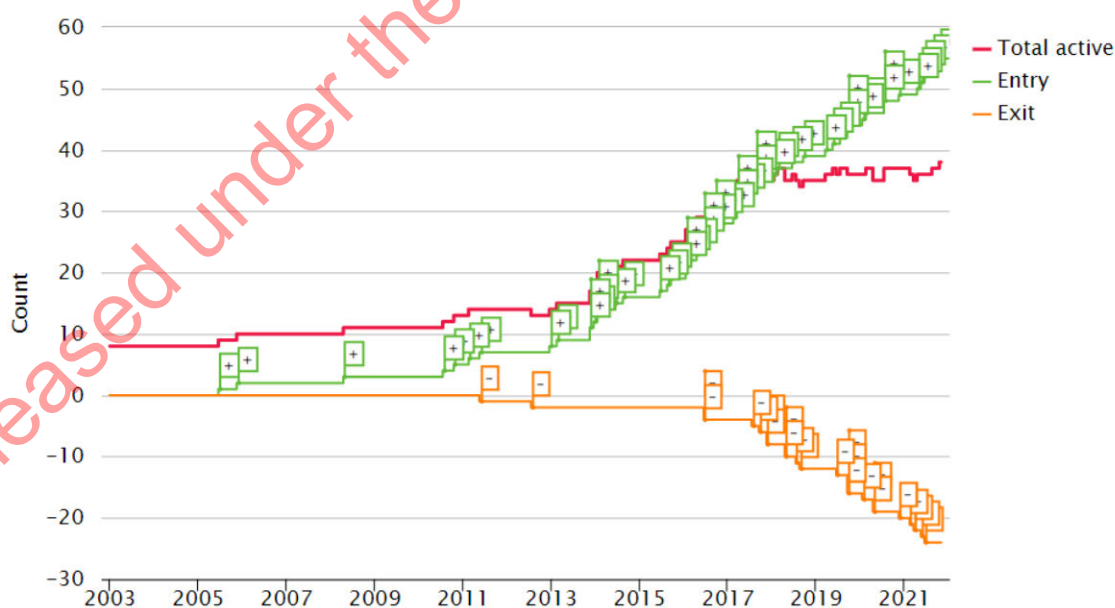
<sup>14</sup> [www.emi.ea.govt.nz/Retail/Reports/R\\_SwT\\_C?DateFrom=20180301&DateTo=20230228&RegionType=MAIN\\_CENTRE&SwitchTypecode=TR&\\_rsdr=L60M&\\_si=db|BZTDDC,dri|970,v|3](http://www.emi.ea.govt.nz/Retail/Reports/R_SwT_C?DateFrom=20180301&DateTo=20230228&RegionType=MAIN_CENTRE&SwitchTypecode=TR&_rsdr=L60M&_si=db|BZTDDC,dri|970,v|3)



Historically switching activity has tended to increase over the winter months due to higher bills acting as a motivating factor. However, since winter 2021 there hasn't been the same switch levels which can be partly explained by smaller retailers withdrawing from acquisition due to the adverse market conditions.

#### *Independent retailers have exited the market*

NZIER's analysis of EA's data on trends in retail market share and entry and exit shows that 14 retailers have left the electricity market since late 2018, and several other new entrant retailers have either not increased customer numbers or have reduced customer numbers.



Source: Electricity Authority (2022)

NZIER puts this down to wholesale market volatility and the resulting lift in the futures price negatively affecting retailers who could not obtain suitable bilateral arrangements to enable them to compete against the vertically integrated gentailers.<sup>15</sup>

### **Electricity Authority action unlikely to be timely or effective at resolving issues**

Although at various times the Electricity Authority has raised concerns about competition issues affecting wholesale electricity markets, on each occasion it has declined to act. While the Commission may have been reluctant to investigate matters that are currently undergoing significant regulatory review by the Electricity Authority, that is no longer the case. In particular:

- It has concluded the market making workstream that it undertook from 2018 – 2022.<sup>16</sup>
- It has concluded its investigation of financial transmission rights, and intends only minor changes in the future.<sup>17</sup>
- It has concluded its review of wholesale market competition.<sup>18</sup>

Octopus considers that the additional work currently being undertaken by the Electricity Authority will not be timely or effective at addressing the margin squeeze that is occurring today. These concerns were raised with the Electricity Authority which ultimately conclude that *"consumers and businesses with specific concerns about a business's misuse of market power, for example, can make a complaint to the Commerce Commission."*<sup>19</sup>

### **Conclusion**

Octopus Energy has engaged with the Electricity Authority on these issues but made little progress, despite the seriousness of the issue. Given the recent changes to section 36 of the Commerce Act, it would be timely for the Commission to undertake an investigation of these issues. We would welcome the opportunity to discuss our complaint with the Commission.

If you have any questions about this please contact me.

Yours faithfully,

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[octopusenergy.nz](https://www.octopusenergy.nz)

<sup>15</sup> NZIER, Assessing the NZ Wholesale Electricity Market, December 2022.

<sup>16</sup> Electricity Authority, Hedge Market Enhancement: Commercial Market-Making Scheme, 26 July 2022.

<sup>17</sup> Electricity Authority, Financial transmission rights Market review Decision paper, 6 June 2023

<sup>18</sup> Electricity Authority, Promoting competition in the wholesale electricity market in the transition toward a renewables-based electricity system, 23 May 2023

<sup>19</sup> Ibid at 4.16

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