Response to survey of industry participants perceptions 2022/23

21 November 2023

ELECTRICITY AUTHORITY
TE MANA HIKO

Contents

1. Introduction

1.1 In May and June 2023, the Electricity Authority Te Mana Hiko (Authority) commissioned AK Research & Consulting (AKR)[1] to conduct a survey of randomly selected electricity industry participants and stakeholders. The survey focused on respondents' perceptions as a representative of their organisation, with a range of questions relating to the Authority's strategic ambitions and statutory objective.

1.2 We acknowledge the responses and thank the survey respondents for taking the time to provide their valuable feedback. The feedback provided will continue to shape the Authority's business planning through the Annual Corporate Plan as we focus on our purpose of enhancing New Zealanders' lives, prosperity and environment through electricity.

1.3 The feedback we received represented a wide range of views from across the sector and covered a wide range of topics. Some consistent themes emerged, and these are summarised and responded to below.

2. Results of the perception survey

2.1 Results from this perception survey have been included in the Authority's Annual Report 2022/23 as part of our performance measures. The Authority uses performance measures to assess progress against the impacts (contributions) the Authority is making towards our strategic ambitions. A range of measures and data sources may be used to assess an impact. The perception survey is used alongside internally held data and independent assessments.

2.2 The use of multiple data sources allows the Authority to consider performance from a variety of angles, and these sources work together to paint an overall picture of performance. As such, individual performance measures should be considered in the wider context of the impact to which they relate.

2.3 The key themes from the survey also reflect areas in our Annual Corporate Plan for 2023/24. We are working hard to address the challenges facing the electricity sector with the transition to a net zero carbon economy, and the increased electricity demand we will likely see. Throughout this, we are focused on ensuring the transition is as efficient as possible while maintaining energy security, system adaptability and affordability for consumers.

Concerns about reliability and resilience in a low-emissions future

2.4 Participant perceptions on reliability have decreased since last year. Participants had mixed views on whether the settings for the electricity market would maintain reliability through the transition of the energy sector to low-emissions energy. This was a significant drop from last year where a majority agreed that the system would maintain reliability through the transition.

2.5 Respondents talked about the concerns about reliability of supply in a low-emissions economy, including relying on wind and solar without the availability to store electricity. They worried about peak demand in winter and wondered if changes resulting from the 9 August 2021 peak demand event would result in

[1] AKR is an independent research company, offering qualitative and quantitative research.

reliability. They also cited the need for more investment in generation to ensure reliability but were also concerned about the costs of ensuring reliability. Some commented more government intervention and regulation is needed to ensure that market settings supported the transition.

2.6 The impact of severe weather including Cyclone Gabrielle was also mentioned by respondents and may have influenced the results this year. Due to the timing of the survey the interventions made by the Authority in preparation for winter 2023 had not been tested.

Our response

2.7 The electricity sector has a major role to play in New Zealand's shift to a low carbon future. As the sector drives towards more renewable electricity, a decarbonised system will support the accelerated electrification of transport and heat – the most significant contribution to New Zealand achieving net zero carbon by 2050. The Authority is focused on ensuring the transition is as efficient as possible while maintaining trust and confidence in the reliability of the system through this transition.

2.8 The Authority has several significant and transformational workstreams underway to support the transition to a low-emissions economy. The Authority's 'Future Security and Resilience' workstream will help ensure that, through the transition, our power system remains secure, resilient, and promotes long-term benefits for consumers. We will publish a consultation paper in early in 2024 as part of the Authority's workstream on ensuring a system operation model that best promotes the long-term benefit of consumers, by providing a stable, secure, and resilient power system. This is expected to be a multi-year programme of work.

2.9 The Authority's 'Managing peak winter electricity demand' project focused on preparing for winter 2023 and the potentially challenging situations that may lead to strains in our electricity system during peak winter demand. We implemented four options to better manage potential supply issues and will be assessing their impact ahead of winter 2024. In addition to this work, the Authority is releasing a consultation paper in late 2023 assessing further options that could be implemented to support participants in meeting consumers' peak electricity demand capacity needs.

2.10 The Authority identified some investment risks that could prevent an orderly thermal transition. A consultation paper published in June 2023 indicated the risk of the required thermal generation not being available during the transition was low. Some submissions on the consultation paper suggested that there may be a need for investment in new, fast-start gas generation during the transition. The Authority is considering next steps and whether any additional options over and above the 'Winter 2023' options will be required to ensure investment in new thermal capacity goes ahead, if it is required.

Mixed views on whether competition is ensuring efficient operations and pricing structures

2.11 Respondents had mixed views on whether competition ensures efficient operations and pricing structures. There was an increase in the perception that competition between electricity generators ensures that prices are set at efficient levels. However, there was a decrease in the perception that competition between retailers

ensures that consumer prices only rise in line with costs to the electricity companies. Respondents were also split on whether the electricity market was able to meet the needs of consumers now and in the future.

2.12 Respondents mentioned lack of switching providers by a significant number of consumers, lack of competitive pricing by generators, monopoly power held by hydro generators, wholesale pricing higher than it should be and a lack of competition in the new generation market.

2.13 Some respondents spoke about prices not reflecting the underlying market conditions, with lower costs to participants not being passed on to consumers, but higher costs being passed on. Comments were also made about the way the spot market and hedge market were working.

Our response

2.14 The Authority is focused on enabling a thriving competitive market in which innovation drives progress, efficiency and better outcomes for New Zealand. Competition helps ensure New Zealanders have plenty of choice about the retailers and brands they can buy electricity from.

2.15 This year we completed a review into competition in the wholesale market. Observations from the review included some pricing not reflecting underlying supply and demand, and increased incentives for generators to structure their offers into the market in a way that keeps prices high.

2.16 In light of this review, we decided to implement a suite of actions to constrain the exercise of market power and facilitate investment in new renewable generation. In May 2023, the Authority made a permanent Code amendment to address the potential for inefficient price discrimination in very large contracts. We have also confirmed actions we are taking to constrain the exercise of market power and encourage investment in renewable generation to promote competition in the wholesale electricity market. These actions will help promote wholesale market competition in the low-emissions transition and deliver better long-term outcomes for consumers.

2.17 We are increasing our focus on the retail market including broadening the scope of our monitoring to include a new set of data in the retail market. The draft data set will allow us to understand prices and usage patterns in the retail market to a degree we have not been able to before. This in turn will help us set an evidence-based work programme to enhance competition in the retail market.

Monitoring has improved but there is a need for more enforcement

2.18 Most respondents agreed that the Authority actively monitors market outcomes and monitors participant behaviour and market outcomes. However, respondents were less confident that the Authority holds participants to account for their actions. Respondents commented on the need for the Authority to do more to hold participants to account and improve the timeliness of enforcement. There was also less confidence in the role of the Authority as the kaitiaki of the electricity sector, including questioning whether this was an accurate reflection of our role.

Our response

2.19 Compliance, education, and enforcement is a major focus for 2023/24. In the past year we have successfully cleared the backlog of compliance cases that built up during the COVID-19 lockdowns. This year to improve regulatory compliance, we are working on process improvement and increasing our capability to improve timeliness. We are publishing recent case studies and reports to industry on trends and outcomes from our compliance processes. We are also establishing a compliance education programme.

2.20 Examples of enforcement activity we have undertaken include raising formal complaints with the Rulings Panel about Transpower and Ecotricity. We lodged a formal complaint in April 2022 alleging four breaches of the Code by the system operator about its management of the grid emergency on 9 August 2021. The Rulings Panel ordered the system operator to pay a fine of $150,000 and pay the Authority's costs. Since the events of 9 August 2021, we have seen a series of improvements made by Transpower to apply the lessons learned during the event and subsequent grid emergency events have been managed far more effectively.

2.21 We lodged a formal complaint with the Rulings Panel over alleged Code breaches by Ecotricity. Alleged breaches of the Code by Ecotricity were reported to us by The Utility Company Limited and Meridian Energy Limited over Ecotricity's failure to provide electricity consumption data from a lawful request. The free and prompt flow of consumption data from a retailer to a competitor that seeks to switch a customer to their services is fundamental to support competition. Ecotricity initially denied the alleged breaches but later acknowledged it had breached the Code. The Rulings Panel found Ecotricity had breached five clauses of the Code about providing consumers and their agents with information about consumers' electricity consumption. It fined Ecotricity $57,000.

Market settings need to support innovation

2.22 Respondents were more likely to disagree that market settings encourage innovation. Current market settings and structure are seen as barriers to innovation, with respondents saying that regulation doesn't meet the pace of change required. Respondents commented that there was a need to adjust market settings in a timely manner to support innovation.

2.23 Respondents expressed more confidence that the current market settings encourage innovation in generation and consumer-facing services and less confidence that the market settings encourage innovation in network management. The retail sector was viewed as being a place where innovation was occurring particularly amongst smaller retailers. In contrast comments were made about the lack of consistency and standardisation in the distribution sector resulting in a barrier to innovation.

Our response

2.24 The evolution of the electricity system will be achieved through innovation and disruption, with both participants and the Authority thinking beyond the status quo. The Authority's role is to help unlock the full benefits of innovation for consumers by making sure the settings are conducive to innovation and industry success.

2.25 Technological change means more solar panels, electric vehicles and batteries will be connected, creating new challenges and opportunities for distribution networks.

2.26 We are focused on updating the regulatory settings to encourage and enable distribution networks to support the transition to a low-emissions economy at the lowest cost to consumers. This is a large work programme that will continue over the next year. Innovation in distribution networks will be critical to supporting an electrified economy. We are also working closely with the Commerce Commission who also regulate distribution networks.

2.27 Regulation can struggle to keep up with innovation. This year we approved two exemptions and a Code amendment to enable an energy sharing trial led by Kāinga Ora and Ara Ake in which solar energy sharing will be implemented on selected buildings to maximise their solar investment and show how energy sharing can potentially reduce energy hardship. This trial is an opportunity to assess and learn more about energy sharing using multiple trading relationships alongside industry.

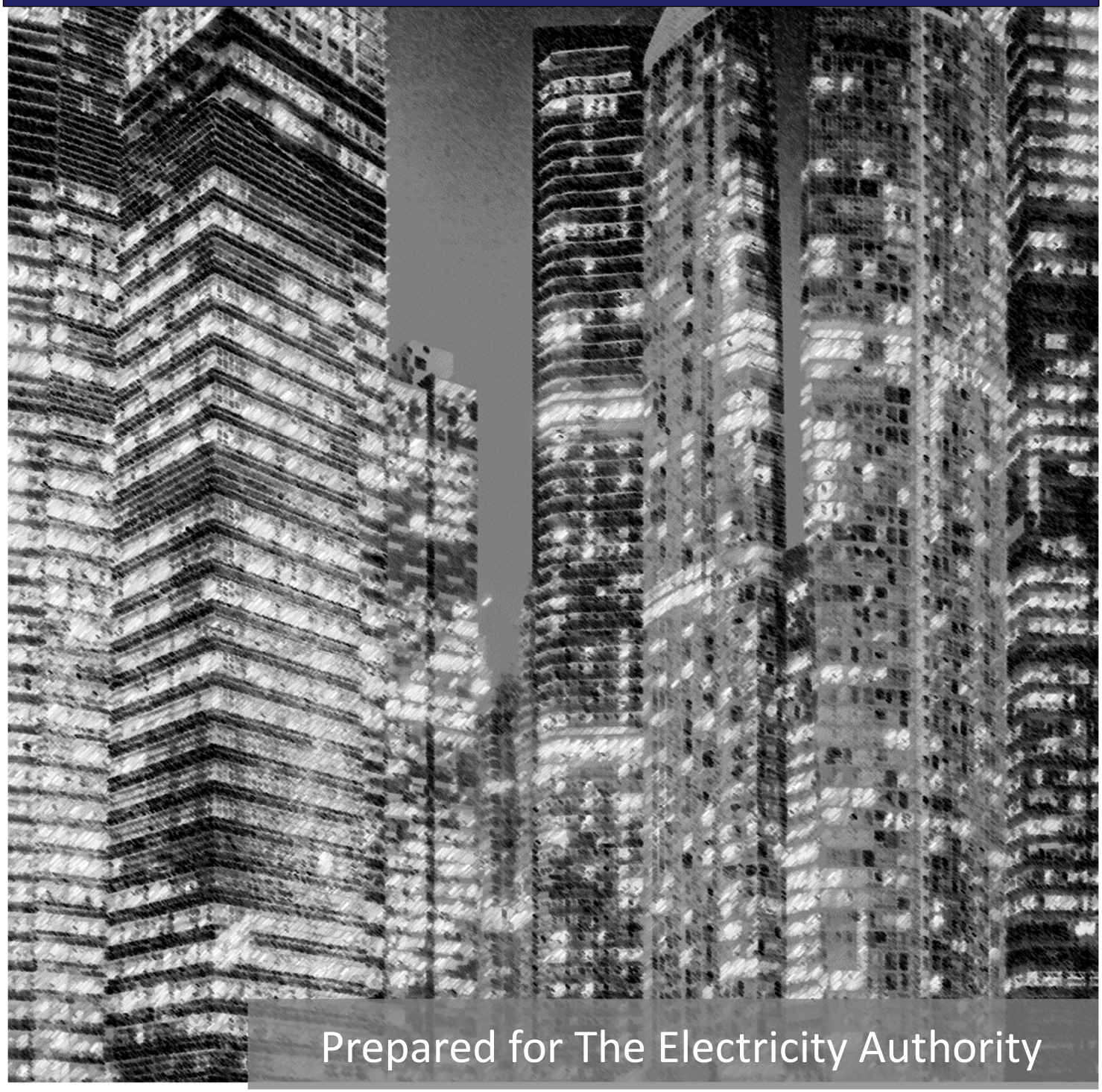
2.28 We know we need to focus on fit-for-purpose regulation over the next few years while moving forward and potentially considering exemptions in the interests of supporting the transition and positive outcomes for consumers. We also know we need to move faster to ensure regulation enables innovation and new technology in the industry for the benefit of consumers. This will require additional resource to shift a gear and meet expectations.

3. AKR report provided to the Authority

3.1 The remainder of this document contains AKR's report to the Authority. The report includes the survey results and AKR's high-level analysis. All results presented are the perceptions of respondents as representatives of their organisations, and do not necessarily reflect the views of the Authority.

Survey of electricity industry participant perceptions

July 2023



Prepared for The Electricity Authority

ak research & consulting

Contents

1. Executive summary

Low-emissions energy

There continues to be a divide among respondents regarding whether the electricity system will maintain reliability or support an efficient transition to low emissions energy. The main shift in opinion was a lower proportion agreeing that the market will maintain reliability. While agreement that market settings will support an efficient transition to low emissions energy has remained relatively steady.

- 37% (down 15%) agreed the market will maintain reliability.
- 36% (up 3%) agreed that electricity market settings will support an efficient transition to low emissions energy.

Respondents mentioned a number of challenges and risks to reliability including the reliability and availability of low emissions alternatives, a lack of resilience in the system, the gentailer model, and distribution model (e.g. the large number of distributors). Changing government policy was also a concern mentioned.

Respondents also considered that the current market settings were not seen to support the transition to low emissions energy with undue reliance on competition to bring about change to energy prices, the lack of support /incentives to develop new products and new technology outpacing the development of appropriate regulations.

It was noted that market settings during transition would need to continue to evolve to meet these challenges.

Consumer centricity

Respondents were also divided on whether the market was meeting or would meet consumer's evolving needs in the future. Also noted was that agreement for both measures declined.

- 43% (down 7%) agreed that the electricity industry is meeting consumers' needs.
- 39% (down 6%) agreed that the industry will meet consumers' evolving needs in the future.

Those respondents who agreed that the electricity market was meeting and will continue to meet consumers' needs acknowledged the progress being made and that consumer issues were being addressed.

Many respondents, however identified the cost of electricity as a key concern for consumers, with New Zealanders experiencing higher cost of living currently. In addition the complexity of the electricity system was seen to contribute to higher prices for consumers.

Also mentioned was the lack of investment for the future (affecting ability to meet the needs of decarbonisation and potential impacts on reliability) that would have consequences for consumers.

Trust and confidence

There was strong agreement the electricity system delivers a high level of reliability, although there was a fall in agreement this year. Agreement was divided that the electricity industry operates efficiently with just over a third in agreement and a further third disagreeing.

While a majority of respondents agreed the Electricity Authority actively monitors the market, agreement with other responsibilities were much lower. While confidence in the role the Authority plays as kaitiaki of the electricity sector has improved, this responsibility continues to have the lowest agreement among respondents. Nearly a third were neutral.

Respondents identified several factors which undermined their trust and confidence in the electricity sector. These included the slow pace of work and lack of proactivity and questioning whether the system did provide a high level of reliability (in the wake of Cyclone Gabrielle and other recent weather events).

The role of the Electricity Authority was reflected on with some respondents wanting a more open and transparent working relationship with the Authority and to be treated more fairly. These respondents looked to the Authority to better monitor participant behaviour and hold participants to account. Furthermore it was apparent that the kaitiaki role was not well understood.

- 69% (down 9%) agreed that the Electricity Authority actively delivers a high level of reliability.
- 60% (up 6%) agreed the Electricity Authority actively monitors market outcomes.
- 57% (up 1%) agreed the Electricity Authority actively monitors participant behaviour.
- 38% (down 7%) agreed the Electricity Authority holds participants to account for their actions.
- 38% (down 2%) agreed that the electricity industry operates efficiently.
- 28% (up 5%) agreed that they have confidence in the role the EA plays as kaitiaki of the electricity sector.

Thriving competition

The electricity sector was not considered as that competitive. While agreement that new entrant generators can operate on a level playing field with established generators held steady, just over a quarter agreed. Only a fifth of respondents agreed that new entrant retailers can operate on a level playing field with established retailers, a fall from the previous year.

Respondents considered a level playing field for new entrants to compete on did not exist (both for the generation and retailer sectors). They noted that it was difficult to compete financially as a new entrant with a lower asset base and access to electricity supply at a true wholesale rate.

- 28% (down 1%) agreed new entrant generators can operate on a level playing field with established generators.
- 20% (down 5%) agreed new entrant retailers can operate on a level playing field with established retailers.

The market power held by gentailers was also seen to be hindering competition with stand-alone retailers seemingly disadvantaged over those vertically integrated.

Innovation flourishing

This year agreement that innovation was supported, when tested among a number of innovation factors fell for the majority of factors tested. One factor remained steady, that current market settings encourage innovation in transmission network management. Disagreement was higher than agreement.

Respondents considered that the current regulatory settings and the regulatory environment were barriers to innovation, especially the ability to adapt market settings and the timeliness/ responsiveness to the current pace of change.

Additional factors impeding innovation mentioned by respondents were slow process of changes to the Code and the distribution sector (the large number, the lack of consistency and monopoloy nature).

- 31% (down 3%) agreed the current market settings encourage innovation in consumer-facing services.
- 21% (down 6%) agreed the current market settings encourage innovation in generation.
- 17% (down 11%) agreed the electricity regulatory environment supports incorporation of new business models and technology in a timely manner.
- 16% (up 3%) agreed the current market settings encourage innovation in transmission network management.
- 15% (down 1%) agreed the current market settings encourage innovation in distribution network management.

Competition (in the electricity sector)

Agreement among respondents regarding competition among generators and retailers was mixed. While there was stronger agreement that competition between electricity generators ensures wholesale market prices are set at an efficient level this year.

Conversely agreement that competition among retailers ensures consumer prices only rise in line with costs to the electricity company fell somewhat.

The main concerns expressed by respondents included; the lack of competition among generators and the wholesale market, retailers not as competitive as they could be, and pricing (spot pricing, hedge markets).

- 27% (down 13%) agreed competition between retailers ensures that consumer prices only rise in line with costs to the electricity companies.
- 38% (up 2%) agreed competition between electricity generators ensures they build the most efficient power stations.
- 41% (up 9%) agreed competition between electricity generators ensures wholesale market prices are set at an efficient level.

Reliability

Reliability measured as a reliable supply of electriciy each day received 75% agreement. This was a fall of 10% from the highs achieved in 2021 and 2022.

There was a strong downward shift this year regarding agreement that there was enough electricity to meet ongoing needs. And the downward shift continued with lower agreement that electricity arrangements would ensure an appropriate balance between reliability and cost or that in the future the electricity system would strike an appropriate balance between reliability and cost.

Respondents had concerns around the risks to supply and increased demand due to decarbonisation and New Zealand's climate change response (significant investment would be required).

Also of concern was the lack of progress in addressing the perceived structural issues impacting on reliability, government policy and the cost to maintain current reliability in the face of increased demand, decarbonisation, and climate change policy initiatives.

- 75% (down 10%) agreed there is a reliable supply of electricity every day.
- 44% (down 13%) agreed there will be enough electricity to meet ongoing needs.
- 35% (down 5%) agreed the current electricity market arrangements ensure an appropriate balance between reliability and cost.
- 28% (down 3%) agreed over the next 10 years the electricity system will strike a balance between reliability and cost.

Efficiency

The New Zealand Electricity Market

Like previous years, respondents continue to be divided on whether the New Zealand electricity market supports efficiency. There were downward movements in agreement levels for both generation and distribution; while agreement for distribution remained steady.

- 54% (up 1%) agreed the New Zealand electricity market ensures electricity is **transmitted** efficiently.
- 51% (down 4%) agreed the New Zealand electricity market ensures electricity is **generated** efficiently.
- 40% (down 5%) agreed the New Zealand electricity market ensures electricity is **distributed** efficiently.

New Zealand's Wholesale and Hedge Markets

Respondents were mixed regarding efficiently coordinating electricity production and consumption with a majority agreeing that NZ's wholesale markets were efficiently coordinating compared to a fifth agreeing that hedge markets were.

Agreement levels were similar for both wholesale market/hedge market that they efficiently facilitate timely investment in the electricity system.

Excluding wholesale market efficiently coordinates electricity production and consumption, disagreement was generally higher than agreement. This was similar to previous years and suggests that wholesale and hedge markets may not support efficiency or timely investment as well as they should.

Respondent comments continued to be concerned about price hindering efficiency. The Transmission Pricing Methodology, hedge market and wholesale market all contributed to inefficiencies in the electricity system. Other sectors in the electricity system were singled out as contributing to inefficiencies. These included the retail sector and the distribution sectors.

- 55% (up 4%) agreed that New Zealand's wholesale market efficiently coordinates **electricity production and consumption.**
- 21% (unchanged) agreed that the hedge market efficiently coordinates **electricity production and consumption.**
- 24% (down 1%) agreed that New Zealand's wholesale market efficiently facilitates **timely investment in the electricity system.**
- 22% (up 7%) agreed that the **hedge** market efficiently facilitates **timely investment in the electricity system.**
- 41% (down 9%) agreed that competition between electricity retailers promotes efficiency **within retail operations**.

Additional feedback

Respondents were asked if they had any further comments about the questions asked in this survey, or if there was anything else they thought the Authority should know.

Challenges to the electricity sector were reiterated again here and included; energy supply challenges and the need for backup from coal and gas, the conflict between an essential service or market commodity and the influence of the larger players in the sector.

Several respondents encouraged the Electricity Authority to take on board the comments and suggestions and act promptly to address the key issues identified. Action suggested included; actively working more closely with participants, providing a stronger voice on the energy transition and being consistent in policy direction.

2. Introduction and Methodology

2.1 Introduction

The Electricity Authority (Authority) is an independent Crown entity responsible for overseeing and regulating the New Zealand electricity market.

The Authority regulates the electricity market by developing and setting the market rules, enforcing, and administering them and monitoring the market's performance. It also places a strong emphasis on voluntary market facilitation measures.

As an independent Crown entity, the Authority is free to adopt its own work programme provided it promotes competition, reliability, and efficiency for the long-term benefit of consumers.

This report covers the responses received via a survey of electricity industry participant perceptions, commissioned by the Electricity Authority. Respondents were asked to answer all questions from their perspective as a representative of their organisation, company, or group. Opinions expressed throughout this report are based on the verbatim comments provided by the survey respondents on a variety of topics, and do not necessarily reflect the views of the Authority.

The research was conducted by independent research company AK Research. AKR is a full-service market research company covering the full range of market research services and has key areas of expertise in stakeholder, client experience research, and knowledge, awareness, and attitudinal research among the general public. AKR are one of the companies that have come out of UMR (which was providing research services since 1987) with the AKR research team having over twenty years' experience working in New Zealand. AKR is a member of the Research Association of New Zealand and abides by the RANZ Code of Conduct which outlines ethical standards for the industry.

In addition data was collected, analysed, and reported independently of the Authority. The database of participants was provided to AKR and a random sample of participants were invited to take part in the survey. AKR used the Voxco platform for building and hosting their online surveys. Analysis and reporting are conducted by our senior team which includes a senior data manager/ statistician, research analyst and our senior researcher. The team approach ensures that objectivity of the research findings is maintained and key findings are interrogated and peer reviewed.

2.2 Methodology

Results in this report are based upon questions asked in an online survey of electricity industry participants and stakeholders. A total of 431 randomly selected participants were invited to take part in the survey and 118 did so, giving a response rate of 27%. Survey invitees were initially given a pre-notification of the survey by the Authority; this was followed by an email invite from AK Research and four separate reminders over the subsequent weeks to those who had not responded.

Fieldwork was conducted from the 22nd of May to the 19th of June 2022.

The maximum margin of error for a sample size of n=118 is ±9.0% (with 95% confidence).

At the request of the Authority, figures have been standardised to avoid totals not adding to exactly 100%. This has been done by 'adding' or 'subtracting' 1 percentage point to the rounded unsure or N/A figures where the total appears to add to 99% or 101%.

2.2.1 Sample characteristics

Type of organisation represented – All respondents (n=118)

Representatives of organisations from across the electricity sector took part in the survey. Electricity Distribution Businesses (EDBs) (22%, down 1%) and Generator and electricity retailer ("Gen-tailers") (18%, unchanged) were most strongly represented. These were followed by electricity retailer (10%, down 3%), consultants (9%, unchanged) and electricity consumer representatives (3%, down 4%). Please refer to the following table for a full breakdown of respondents.

% (n)	2021 (n=100)	2022 (n=114)	2023 (n=118)
Electricity distribution business (EDB) / network/lines company	19	23	22
Both generator & electricity retailer ("Gen-tailer")	19	18	18
Primarily an electricity retailer	13	13	10
Consultancy	11	9	9
Electricity consumer representative	3	7	3
Primarily a generator	5	5	8
Service provider or agent (e.g. hedge market agent)	6	5	8
Electricity consumer	7	4	3
Metering servicer / provider	3	4	3
Transmission company	1	4	3
Investors / educational institutions / professional bodies	6	0	2
Other	7	7	8

Length of time organisation active in the electricity industry – All respondents (n=118)

66% (down 2%) of respondents had been active in the electricity industry for more than 20 years, 20% (up 2%) between six to twenty years, and 15% (unchanged) five years or under.

% (n)	2021 (n=100)	2022 (n=114)	2023 (n=118)
Under two years	6	4	3
Two to five years	12	11	12
Six to ten years	13	6	12
11 to 15 years	6	7	3
16 to 20 years	5	5	5
More than 20 years	58	68	66

How electricity is purchased – Electricity Consumers (n=4)

2 respondents purchased their electricity directly from the spot market and one purchased their electricity directly from retailer on fixed price tariff.

% (n)	2021 (n=7)	2022 (n=5)	2023 (n=4)
Purchase directly from the spot market	29 (n=2)	20 (n=1)	50 (n=2)
Purchase from a retailer on a fixed price tariff	29 (n=2)	60 (n=3)	25 (n=1)
Purchase electricity hedges	14 (n=1)	20 (n=1)	0 (n=0)
Purchase from a retailer - prices paid fluctuate with the spot market	14 (n=1)	0 (n=0)	0 (n=0)
Other	14 (n=1)	0 (n=0)	25 (n=1)

Assess non-network services on a competitive basis when you have a need for new investment – EDBs (n=26)

13 representatives of EDBs said they assessed non-network services on a competitive basis when they had a need for new investment, five said they did not and eight were unsure.

% (n)	2021 (n=19)	2022 (n=26)	2023 (n=26)
Yes	16 (n=3)	65 (n=17)	50 (n=13)
No	37 (n=7)	15 (n=4)	19 (n=5)
Unsure	47 (n=9)	19 (n=5)	31 (n=8)

Number of participants assessed to provide non-network services as an alternative to investment in traditional network infrastructure? (n=5)

2 respondents said they had assessed two participants to provide non-network services as an alternative to investment in traditional network infrastructure, one had assessed four participants, one had assessed five participants and another twenty-four participants.

% (n)	2021 (n=3)	2022 (n=7)	2023 (n=5)
Unsure	34 (n=1)	0 (n=1)	0 (n=0)
1	0 (n=0)	43 (n=3)	0 (n=0)
2	33 (n=1)	0 (n=3)	40 (n=2)
4	33 (n=1)	14 (n=1)	20 (n=1)
5	0 (n=0)	14 (n=1)	20 (n=1)
10	0 (n=0)	14 (n=1)	0 (n=0)
24	0 (n=0)	14 (n=1)	20 (n=1)

Number of participants assessed who are currently providing non-network services (n=5)

Three respondents said no participants were still providing non-network services to their network company, one said one were and one said two.

% (n)	2021 (n=3)	2022 (n=10)	2023 (n=5)
Unsure	34 (n=1)	0 (n=0)	0 (n=0)
0	33 (n=1)	60 (n=6)	60 (n=3)
1	33 (n=1)	30 (n=3)	20 (n=1)
2	0 (n=0)	10 (n=1)	20 (n=1)

Participants whose organisation has provided new products or services to consumers in the past 24 months

42% (n=50) said their organisation has provided consumers with new products or services in the past 24 months. The new products and services provided are listed below.

	% (n)	2022 (n=100)	2023 (n=118)
Yes		37	42
No		51	45
Unsure		12	13

In the past 24 months, has your organisation provided new products or services to consumers? - Yes (please specify the new product/service)
Carbon trading and related services
Connections/ contracts
Customer engagement and support/ vulnerable customers
EV support
New pricing plans
Solar/hydro/ renewable energy services
Tech solutions

Note the full list is in the Appendix.

2.2.2 Reporting of verbatim feedback

Respondents were invited to make additional comments about each of the topics in the survey:

- Low-emissions energy.
- Consumer centricity.
- Trust and confidence.
- Thriving competition.
- Innovation flourishing.
- Competition.
- Reliability.
- Efficiency.

They were also asked to provide further comments if there was anything else they thought the Electricity Authority should know.

Key themes are discussed in the relevant sections of this report, supported by verbatim comments. Please note these are the comments made by individual respondents and are their own perceptions or opinions.

3. Low-emissions Energy

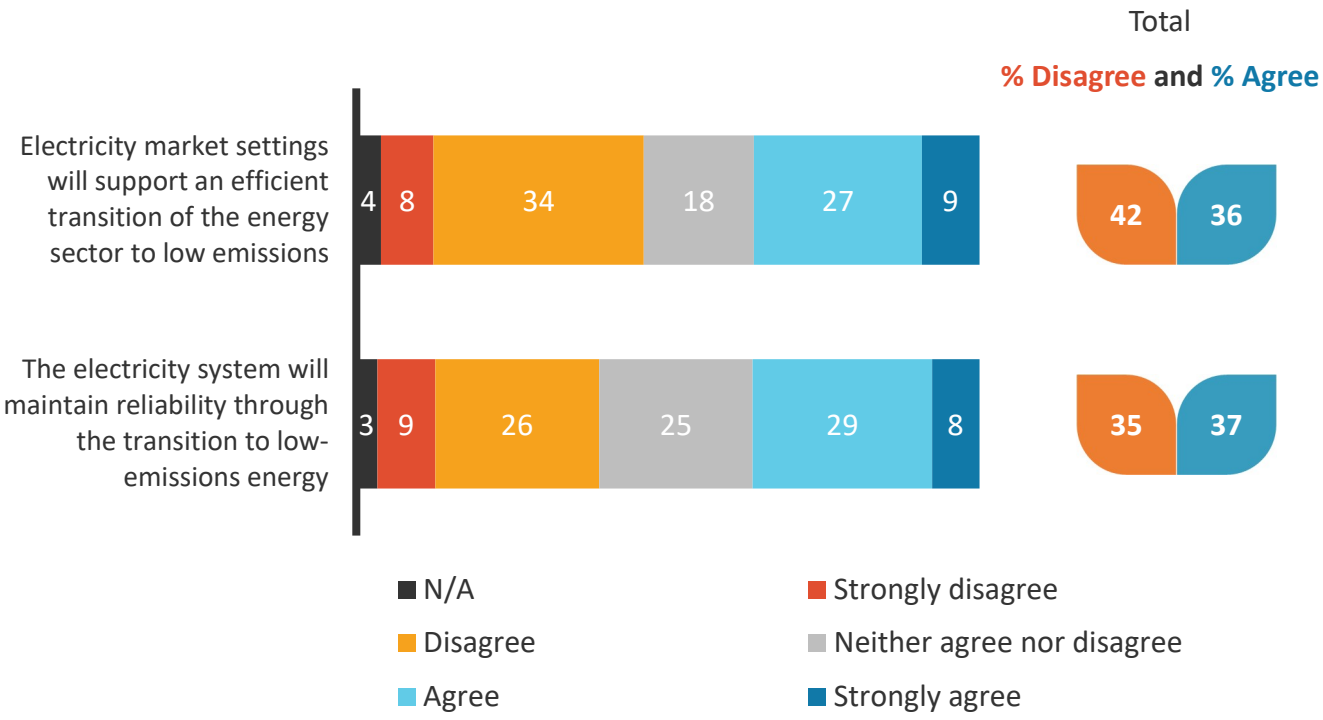
3.1 Results

Respondents were divided whether the electricity market settings will support an efficient transition or maintain reliability through transition of the energy sector to low emissions energy.

36% (up 3%) agreed (strongly agree and agree) that the electricity market settings will support an efficient transition to low emissions energy, while 42% (up 9%) disagreed. 18% were neutral (down 9%).

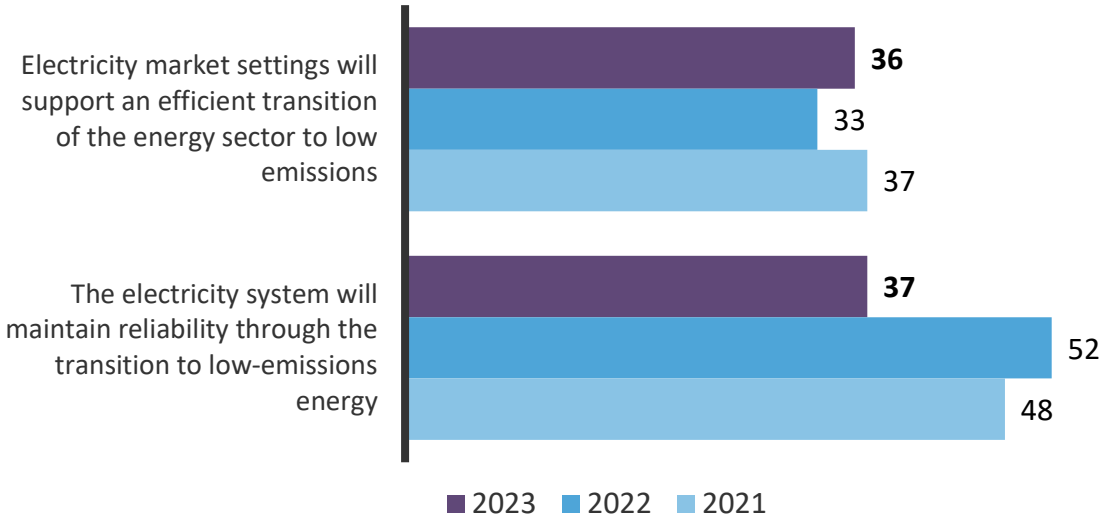
There was a drop in agreement with the statement that the electricity system will maintain reliability through the transition to low-emissions energy; 37% (down 15%) agreed, 35% (up 14%) disagreed (disagree and strongly disagree), while 25% (up 4%) were neutral.

Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A (%)



Base: All respondents (n=118).

Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A (% total agree)



Base: All respondents (approx n=100 per survey).

3.2 Verbatim feedback

Respondents were invited to provide feedback or comments about their answers. These are discussed below, with supporting verbatim comments. Please note, the same format is used for all questions with a verbatim component. All verbatim comments are in italics.

Among those who provided comments only a few respondents considered that current market settings supported transition or reliability through the transition to low emissions energy. These were based on the flexibility that the market led system provided and that generation investment occurred when it made commercial sense.

> *The market settings appear to be fit for purpose, provided that the MDAG recommendations are implemented.*
>
> *Only a market led system has the flexibility to manage a system through the turmoil to a low emissions system. When the market was first established many traditionalists said that "prices will double" or "the lights will go out". Neither happened. That is because in a market there are willing buyers and willing sellers. They know better than anyone how to manage change.*
>
> *I expect the settings will work out barring adverse policy interventions. With Lake Onslow looking far less certain now, that impediment to generation investment should be declining….It would be bad to shift from current settings, in which generation investment happens when it makes commercial sense, to one in which investment relies on lobbying government for project-specific subsidies.*

Challenges however were noted and during the transition the expectation was that market settings would continue to evolve to meet these challenges.

> *Current market settings may provide for an efficient transition for industry participants, but risk leaving some consumers behind. Efficiency must be considered taking the transition as a whole, will not be efficient. A greater focus on social outcomes for household customers could help this.*
>
> *The market settings and electricity system as they stand do not cater for all the anticipated changes but will continue to evolve (hopefully in the necessary time frames).*
>
> *Market settings need updating to support the transition given new participant base and new technologies. Decentralisation seems to be overlooked at the moment.*

Challenges and risks to reliability mentioned included the reliability and availability of low emissions alternatives; concerns around the lack of resilience in the system; and the gentailer and distribution model.

Availability of low emissions alternatives

> *Concern over how the system will adapt to more intermittent renewable generation, balanced with less thermal. Will we have the back-up options to firm our supply when it's a grey/calm day, and at what cost?*
>
> *Infrastructure is underinvested for climate change. Regulatory settings are constraining catch up.*
>
> *Without large-scale low-cost energy storage – a technology that does not yet exist – intermittent renewables cannot provide reliable supply.*

Lack of resilience in the system

> *I am not certain that we have resolved the issues that lead to the 2021 outage properly yet or that the Authority understands the arrangements in place to manage load.*
>
> *Concerned about winter peak shortages with insufficient price signals and flexible/fast start plant. The electricity system is under duress during winter and the market setting are the principal reason. Until these are remedied then the low emissions future is compromised.*

Gentailer/Distribution Model

> *Gentailer model and so many distributors are problematic.*
>
> *At a distribution level - Reliability is affected by step change in demand and the need to build greater capacity of the existing network to accommodate this demand - both can interrupt supply.*
>
> *The structure and settings of the industry and market encourage the large gentailers to keep supply tight and therefore prices high. The Authority continues its claim the market is working appropriately despite clear evidence that at least one gentailer continues to make super profits.…We are not confident the current market settings are appropriate.*

Also of concern mentioned by some respondents was changing government policy that affected market settings and responses to renewable generation. There was a need to take a longer-term view and whole of system approach one respondent suggested.

> *Government policy is placing electricity market settings at risk through its policy of accelerating withdrawal from gas production and thermal generation.*
>
> *Constantly varying Government position on 100% renewable generation coupled with blindly chasing Onslow will more than likely lead to brown outs later this decade.*
>
> *We need a more holistic whole of system view that looks out 30 years. Of which the market is only one dimension. Regulatory settings. Industry Structure all need addressing.*

Some respondents clearly considered the current market settings were not supporting a reliable transition to low emissions energy. Issues raised included reliance on competition to bring about change to energy prices for consumers, the lack of support /incentive to develop products needed for an affordable transition, and technology outpacing development of appropriate regulations.

> *The market needs reviewing to ensure it is fit for purpose to support reliable and resilient service to consumers. It also needs review to ensure it supports the development of products that will be crucial to an affordable transition.*
>
> *Market settings, in combination with other regulatory settings, appear to be slowing the development of new renewable generation and supporting products and services. Current market settings are not explicitly able to provide security and reliability.*
>
> *Current market settings need reviewing to ensure and efficient and equitable transition. The 'market' will not be able to solve all of this by itself. Regs need to move faster than currently. Technology is far outpacing the ability of regulators to create suitable regs/settings. Need to see pragmatism over purism.*
>
> *The current market settings do not incentivise or reward additional capacity being available. With increasing variable generation being connected and a paucity of fast start/responding assets available it will become increasingly likely we are 'caught short' for peaks.*

There were calls by a few respondents for the **Electricity Authority to actively address** the challenges and risks mentioned above.

> *The system fundamentally lacks resilience and favours the established participants - in virtually all respects, to the detriment of consumers of all sizes. The EA, as the regulator is negligent in terms of addressing these issues and dishonest in terms of their significance. That this situation persists reflect primarily the incompetence of ministers, in particular and politicians generally. These views reflect expert advice that I have received over some years!*

> *It is very clear that current market settings will see market problems become more entrenched and that is inefficient. The market design has nothing other than competition to provide discipline on energy prices to end consumers. The Authority must prioritise taking meaningful action to address market power problems early. There is more than enough evidence that problems are real. Do the work, lay the paper trail and be prepared to defend decisions against legal action.*

4. Consumer centricity

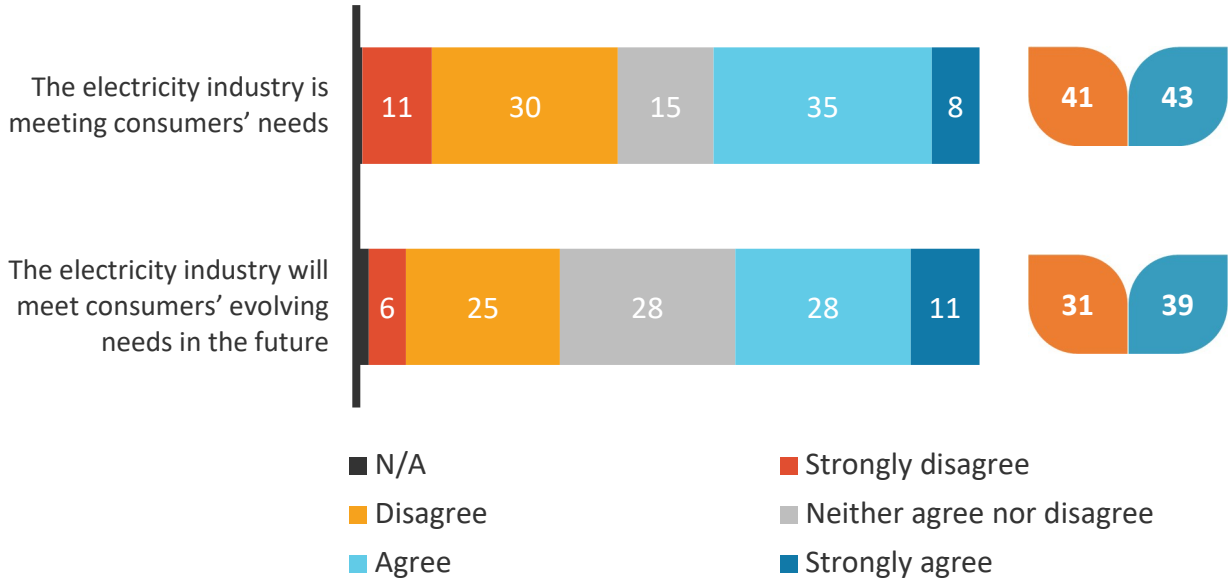
4.1 Results

Respondents continue to be divided whether the electricity market is meeting or will continue to meet consumer needs. In addition a downward shift in agreement was observed for both meeting consumer needs now and into the future.

43% (down 7%) of respondents agreed (strongly agree plus agree) that the electricity industry is meeting consumers' needs. However, 41% (unchanged) disagreed (strongly disagree plus disagree) and 15% (up 6%) were neutral.

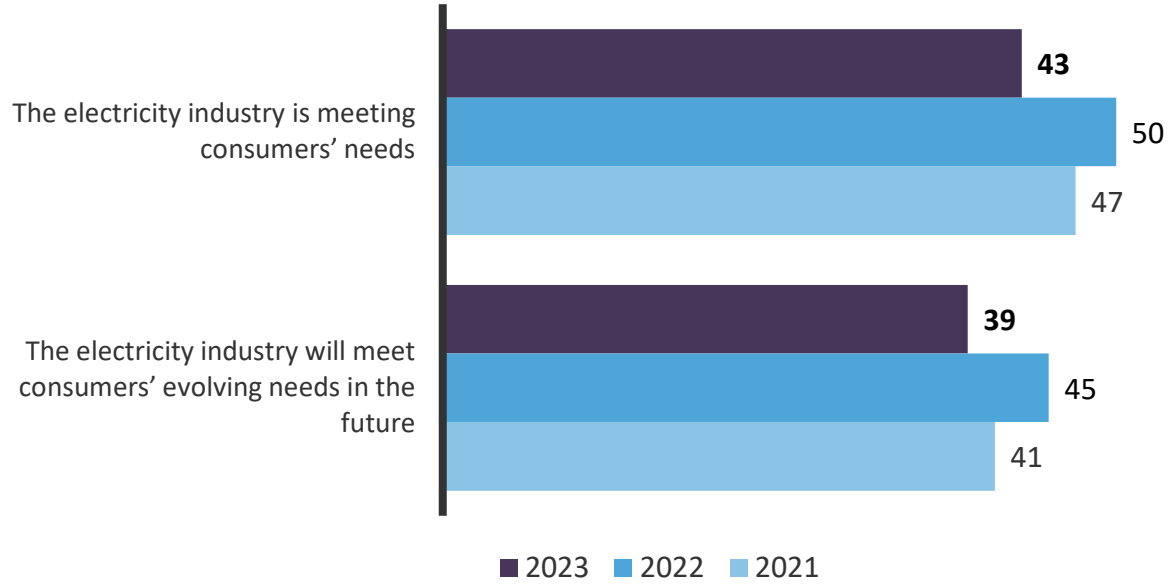
39% (down 6%) agreed that the industry will meet consumers' evolving needs in the future; 31% (down 1%) disagreed and 28% (up 5%) were neutral.

***Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A.* (%)**



Base: All respondents (n=118).

Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A. (% total agree)



Base: All respondents (approx n=100 per survey).

4.2 Verbatim feedback

There was acknowledgement that progress was being made and consumer issues were being addressed by some respondents.

> *There is an enormous amount of positive work underway in the sector that will better serve consumers' needs in the future.*
>
> *Challenges such as the low fixed charge and tree regulations are finally being addressed*.

Notwithstanding while acknowledging that the provision of electricity was being met; the cost of electricity for consumers was a large concern for many respondents, especially with the cost-of-living increases consumers were experiencing currently.

> *I think the industry is meeting some needs - e.g., the power is on pretty much all of the time, but electricity is increasing in cost, meaning our most vulnerable continue to have to choose between heating and eating. The industry is slow to innovate either through customer service or technology.*
>
> *The sector is doing well to meet needs. Most of the pain points for consumers are coming from external factors, e.g. cost-of-living crisis, high commodity prices, climate change (storms etc).*
>
> *Customers receive reliable secure electricity supply, although it costs more than it needs to. As a regulated market, it is unlikely that the electricity system will be able to evolve quickly enough to keep up with customer needs. The level of lag, and the consequences of this, however, is unclear.*

And for a number of respondents affordability and price reflected that consumer needs were not being met.

> *Higher and higher Electricity prices for Kiwis and Kiwi businesses appear to be driven by larger offshore shareholders greed for higher profits which is not good for NZ inc and cost of living crisis.*
>
> *The electricity sector is not meeting consumers' needs due to high energy costs for end use customers.*
>
> *Perception maybe more than reality but there's a lot of frustration in the social sector about price levels.*

Some respondents were concerned that future needs of consumers would not be met with decarbonisation and an energy transition in progress requiring investment. In addition consumer expectations were high and perhaps unrealistic of what will be delivered in the future.

> *In the main the industry is not investing ahead of need; which is troubling in an energy transition. The inability to wean off coal, combined with marginal pricing, means customers who have decarbonised by converting to electricity are still paying carbon costs.*

> *Not sure if the industry can meet the needs of the consumers in the future if decarbonisation leads to brown outs in the transition.*

> *There is significant uncertainty as to whether the reliability and cost aspects of supply will meet the expectations (which may be unrealistic) of the general public.*

A few respondents identified factors they considered were inhibiting innovation and change that impacted on consumer needs being met. They included: systems and processes that slowed down innovation and dominance of gentailers (and wanting to retain the status quo).

<u>Systems and processed inhibiting innovation</u>

> *Work needs to be done to remove red tape and allow for faster innovation in the retail space if we are to meet the needs of consumers in the future.*

> *Innovation is essential to meeting consumer's needs. New entrant retailers are incentivised to innovate to attract customers. The price squeeze - where the cost of buying electricity is above the retail prices for selling this electricity (that has persisted for several years) is impacting new entrant retailers ability to innovate.*

<u>Dominance of gentailers</u>

> *Given the dominance of the major gentailers, pressures to maintain the status quo are likely to slow down the transition from the current top-down system.*

> *Consumer need is not met when the industry overcharges because of outdated business models. The industry needs to move from centralised to decentralised, including the business models. It is not decentralised when a few major players control the way energy is created and distributed. Flexibility services need to be easily accessed from consumer-invested DER.*

The overall electricity system was a concern, with the complexity of the system mentioned by some respondents.

> *The industry is too complex therefore electricity is far too expensive for consumers.*

> *Market power is held by few and therefore effective consumer pricing cannot be competitive.*

One respondent mentioned that large business consumers' needs were not being met.

> *The industry looks after itself not the consumer. The EA and many other organisations are there for the consumer but in practice this is just for the domestic or small commercial consumer. No one is looking after the needs of larger businesses. The rationale for this seems to be they are big enough to look after themselves but that isn't the case when up against the power of the electricity market and/or monopolies such as network companies.*

Furthermore the role of the distribution sector was mentioned as not that efficient with too many lines companies and poor cooperation between distributors and retailers resulting in consumer needs not being met as well as they could be.

> *There are too many lines companies and they are not setup for efficient use of resources or future looking needs. Barrier to new generation is high and sovereign risk also high with random projects (NZ Battery) and random regulations (TPM) unable to be planned for on long-term investments.*

> *Meanwhile, distribution businesses and retailers continue to have the same arguments about metering, DR and flexibility products they've been having for years. That is ensuring that consumers are not having their evolving needs met.*

5. Trust and confidence

5.1 Results

Role of the Authority

Four key areas the Electricity Authority is responsible for were measured, with the majority agreeing that the Electricity Authority monitors market outcomes (60%) and also actively monitors participant behaviour (57%). There was lower agreement for holding participants to account and the role of the Electricity Authority as kaitiaki of the electricity sector.

Specifically:

- Sixty percent (up 6%) agreed the Authority actively monitors market outcomes (18% disagreed, up 1%)
- Fifty-seven percent (up 1%) agreed the Authority actively monitors participant behaviour (18% disagreed, up 2%).
- Thirty-eight percent (down 7%) agreed the Authority holds participants to account for their actions (34% disagreed, up 5%).
    - Representatives of organisations that have been active for more than 20 years in the electricity industry were more likely to agree that EA actively monitors market outcomes (72%) and participant behaviour (67%), compared to those who have been active for 20 years or less (38% for each).
- Lowest agreement was regarding confidence in the role the Authority plays as kaitiaki of the electricity sector; 28% (up 5%) agreed they had confidence and 37% (down 3%) disagreed. This was an improvement but was still lower than the 37% agreement from 2021.

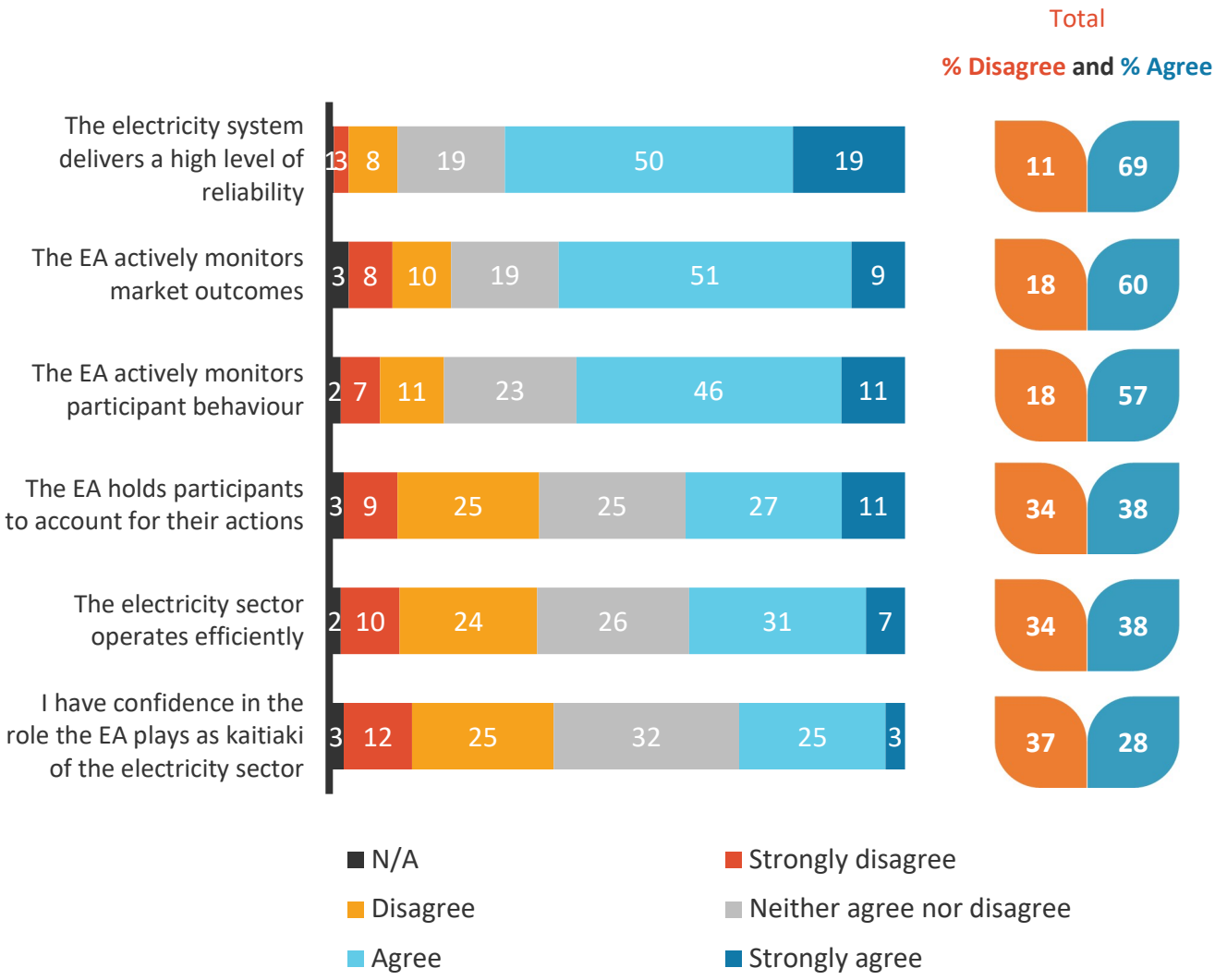
Efficiency and reliability in the electricity sector

Respondent's views of reliability of the electricity system have slipped although over two thirds agree the electricity system is reliable. However Respondents agreement that the electricity sector was operating efficiently continues to be divided.

Specifically:

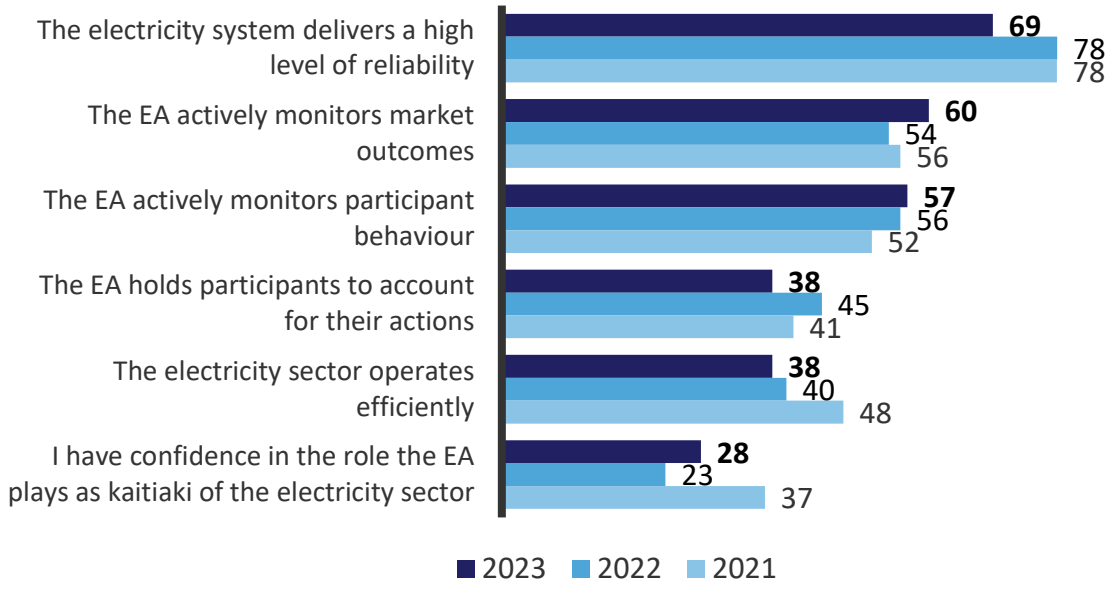
- Sixty-nine percent (down 9%) of respondents agreed (strongly agree plus agree) the electricity system delivers a high level of reliability (11% disagreed, up 3%).
- Thirty-eight percent (down 2%) agreed that the electricity sector operates efficiently (34%, disagreed, down 4%).

***Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A.* (%).**



Base: All Respondents (n=118).

Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A. (% total agree)



Base: All Respondents (approx n=100 per survey).

5.2 Verbatim feedback

Respondents identified several factors which undermined their trust and confidence in the electricity sector.

The EA kaitiaki role was not well understood by respondents.

> *Why does a regulator have to be the 'guardian' of the sector? Why does the sector need a guardian? The EA's role is to hold participants to account against the Code and deliver long term benefits to consumers*
>
> *The EA can't provide Kaitiaki to the electricity sector because it is not the only regulator in electricity and has no influence on externalities that directly affect the sector.*
>
> *I really question the cultural competence of the EA to claim to be the kaitiaki of the sector. I see no evidence of te ao Māori in the EA's operations… Try searching EA policy docs for Māori or Treaty Partner and you'll find next to nothing, and nothing demonstrable of substance.*

Respondents felt the Authority could do more to understand outcomes to participants as part of its monitoring of market outcomes and also communicate better the outcomes of monitoring to participants.

> *EA is sometimes unaware of outcomes to other participants so cannot effectively monitor what is doesn't know Transpower continues to operate and exert unbalanced market power. Past efficiency is no guide for future efficiency when facing change.*
>
> *It is hard to judge this as we don't have much visibility. We do see some of the outcomes of their monitoring, but I think the EA could do a better job of demonstrating how it monitors the market and what it has been monitoring to give people confidence it is taking place.*
>
> *I have ongoing concerns about the EA's ability to both effectively monitor the market and also to deliver new or amended market and industry arrangements (via the Code or otherwise) in a timely fashion.*

One respondent suggested exploring the Australian model which separates out the regulator and operator role allowing the EA to concentrate more on the regulations and policy components.

> *Going forward I suggest the EA ought to consider taking more of 'regulator role' and less of an 'operator role' - the Australia model provides a good example of how it could work in terms of functions done by AER (as regulator) and AEMO (as operator). That is, devolve day-to-day operations and rulemaking to the operators. That frees up the EA to focus on regulation and policy.*

Some respondents considered that the Authority could do more to monitor participant behaviour, mentioning wholesale and retail competition and notably consumer switching suppliers.

> *The EA does not have a handle on wholesale or retail competition.*
>
> *It would be useful for the Authority to monitor the extent to which retailers are ensuring consumers are on the best offering for their circumstances. Retailers are meant to do this once a year but do not appear to be doing so and there is no monitoring as far as we can see. If retailers are failing to do this, they should be held to account. Powerswitch data could support an EA investigation in this area.*
>
> *The EA is too backward-looking, it's not enabling the future but trying to put the future into today's clothes. The public does not have confidence that the EA truly regulates the participants. The Electricity sector is a $40+ billion industry with the most inefficient digital models. Look at banking, travel anything else and you do not wait for up to 5 working days to get enough data from a retailer to enable a decision around switching.*

Comments regarding the Authority holding participants to account for their actions suggested that the Authority could be doing more here, with some respondents wanting more accountability when breaches against the code were made.

> *The EA's role is to hold participants to account against the Code and deliver long term benefits to consumers. How often has the EA initiated a breach against a market participant (holding them to account)?*
>
> *The Electricity Authority is not addressing the clear problems in the electricity market. The statements it has made claiming "There is clear evidence of thriving competition in the retail market" and its defence of incumbent gentailer ITPs (the EA claims the ITPs are achievable by independents when this is patently untrue) etc only serve to undermine the Authority's credibility.*
>
> *IPAG has been arguing for years that small scale code breaches (e.g. retailers not providing data to other participants in a timely way, error free and in the correct format) aren't punished so effectively these rules don't exist which undermines market efficiency and makes market development pointless.*

For some respondents the Electricity sector seen to be not as efficient as it could be citing that it works too slowly with speed on making rulings as well as price signals a concern.

> *Taking in excess of 18 months to make a ruling on a UTS (undesirable trading situation) is NOT active. Such rulings should and final prices should be made within 28 days.*
>
> *… Speed is a concern, for instance the Dec 2019 UTS was apparently being looked at with no outcome until a UTS was claimed and upheld. Further, there are so many moving parts to outcomes conclusions, either way, are imprecise e.g. $37/MWh being unexplainable as part of wholesale price studies.*
>
> *The EA works for the long-term benefit of the consumer. But at times this is achieved at great expense to the short-term benefit of the consumer. e.g. the price shocks caused by the abrupt change to the TPM. I don't believe that the electricity market works as well as other markets have been involved with. It has two few supply side participants to make an effective markets. And it's price signals are too slow in the timely development of new generation.*

The Authority was encouraged to be more proactive and supportive of innovation.

> *The Authority needs to be a more proactive industry enabler - facilitating trails of new concepts, challenging participants for faster uptake. Building is own core competence in market-based regulation and while still using advisory groups not totally dependent on them to progress its thinking.*

A few respondents considered the system provided a high level of reliability with power cuts a rare occurrence in most parts of New Zealand.

> *Power cuts are almost unknown in New Zealand.*
>
> *Reliability in the sector is always high. It may come at a cost, but it is reliable.*

Others, however cited the experience of Cyclone Gabrielle, long unplanned outages and concerns about future power supply that questioned whether the system provided a high level of reliability.

> *With Auckland having the largest population base of any city, we have the majority of our customers based in Auckland. The level of unplanned outages on our customers appears too high. We note the local distribution company was recently fined by the Commerce Commission for the reliability of its network.*
>
> *Recently our customers in one area of Auckland experienced 3 unplanned outages in a week. Each one lasting for several hours.*
>
> *Clearly the electricity sector did not deliver a high level of reliability during Cyclone Gabrielle - the evidence is clear for this.*
>
> *Future power supplies are highly uncertain and, if we get a dry year, we will be in serious trouble. That is not the way to run a system that divides the lifeblood of the economy.*

There were calls for the Electricity Authority to work with participants in a more open and transparent way and treat participants more fairly. Concerns included; a need to report on data collected, the way consultation was managed, the influence of gentailers and current protection of the status quo.

> *The EA gathers an ever-increasing amount of data but does not report on a lot of it. or by the time it does the data is obsolete or potentially no longer useful or insightful*
>
> *While there are signs of change and some positive initiatives from time-to-time (e.g. HSOTC, high-value contracts), there is also ongoing "nothing to see here" attitude that seems deaf to wide-spread mistrust the market is delivering outcomes consistent with competitive markets. The recent consultation on consultation missed the mark by a long way and (in most respects) would be a backward step. That context does not leave me with confidence.*
>
> *The EA is overly influenced by incumbent gentailers and is reluctant to punish them severely for misdeeds. Complaints by gentailers are acted on more quickly and effectively than complaints from independents.*
>
> *Until recently the EA has been strongly protective of the status quo. For example, it portrayed investment in solar power as a free-riding activity that threatened to strand established orthodox generation assets. Hopefully that attitude is a thing of the past.*

The high turnover of staff at the Electricity Authority was a concern with lack of experience and knowledge specifically mentioned.

> *The high turnover of staff at the Authority is causing concern regarding whether staff have sufficient knowledge and insight into the electricity sector. A view that they don't understand the practical realities of what electricity participants are facing. Can come across as too theoretical.*
>
> *The ability of the EA is being tested now more so than ever with a backdrop of significant staff turnover. It will be interesting to see whether or not the EA can renew itself and improve its performance or will its performance suffer.*

6. Thriving competition

6.1 Results

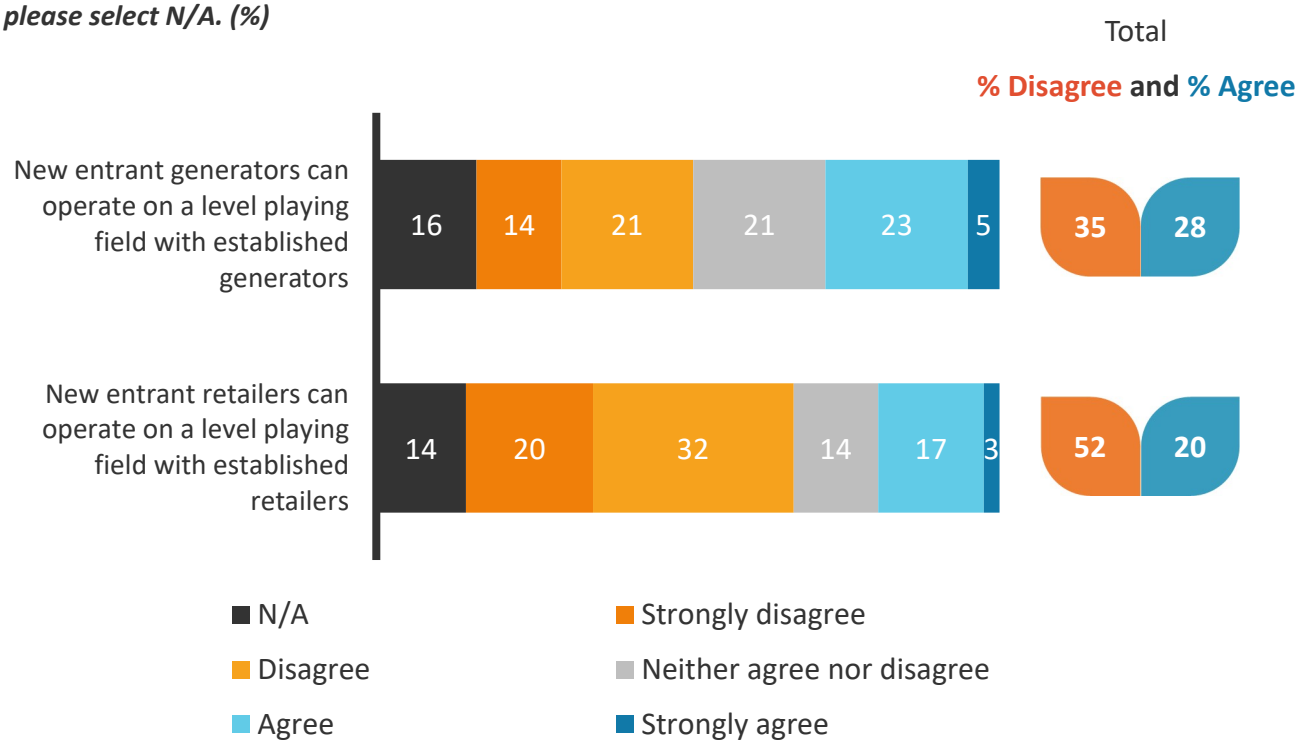
As in all previous years, respondents generally did not think the electricity market was competitive for new entrants.

There was a similar level of agreement with 2022, with just over a quarter (28%, down 1%) agreeing that **new entrant generators** can operate on a level playing field with established generators. However, 35% (down 7%) disagreed.

- Organisations that have been active for more than 20 years in the electricity industry were more likely to agree that new entrant generators can operate on a level playing field with established generators (36%) than those who have been active 20 years or less (13%).

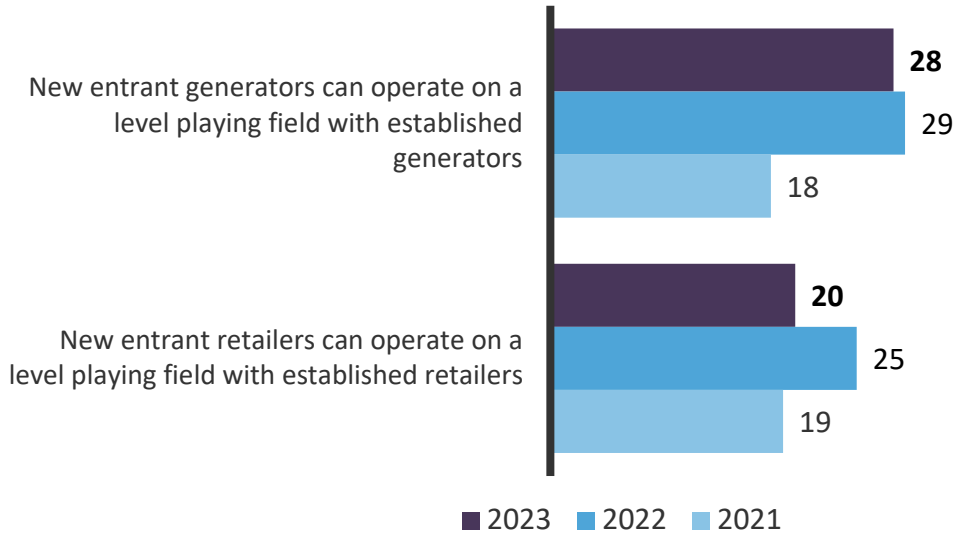
New entrant retailers had a tougher time with 20% (down 5%) agreement (strongly agree and agree) that the **new entrant retailers** can operate on a level playing field with the established retailers, 52% (unchanged) disagreed.

Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A. (%)



Base: All Respondents (n=118).

Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A. (% total agree)



Base: All Respondents (approx n=100 per survey).

6.2 Verbatim feedback

A few respondents queried the need for a level playing field or considered a level playing field currently existed relatively speaking e.g. few barriers to retailers or generators although there was recognition that it was still harder for new entrants with lower resources than incumbents.

> *There appears to be low barriers to entry in the generation market, with new generators (e.g. DER) entering the market at a high rate.*
>
> *Whilst always a controversial question - Barriers to entry are generally low for retailers - noting availability of risk products is key - we have provided these when asked.*
>
> *Agree on both statements. While there is a level playing field (if anything perhaps more negatively skewed to the established participants), new entrants typically have lower resources to compete at a similar level - the same though generally applies in any industry.*
>
> *Ability to compete is highly dependent on a range of factors. clearly, many new entrants will not face a level playing field, but whether they should is another story. Accumulated experience and wisdom can tilt the playing field, as it should. On the other hand, regulatory settings and 'favouritism' should not.*

However, the majority of respondent verbatims centred on the lack of a level playing field, with many citing the difficulties experienced to compete financially. Financial barriers included third party fees, costs for consenting and commissioning new generation capacity and not having a portfolio of assets as back-up, and access to the true wholesale price as a retailer not a gentailer.

> *As a new entrant want-to-be generator I have hard evidence the playing is not level. As a new entrant want-to-be retailer I have invested to develop our own software to avoid third party fees, to offer more competitive retail prices.*
>
> *Established generators have a portfolio of assets and balance sheet that supports the costs involved in consenting and commissioning new generation capacity. The EA has a role in improving the ability for new entrant generators to contract their new output over a longer term - e.g. the EA can make changes to the hedge market which would provide longer term price transparency for new entrants.*

As a retailer we are severely disadvantaged through not being able to access electricity supply at a true wholesale price. We cannot buy at a rate below which the Gentailers see to their own customers at.

A number of respondents were concerned about the market power held by gentailers and that this was inhibiting a level playing field, with vertical integration a cause for concern.

Vertically-integrated gen-retailers can absorb the losses of their retail business. The rate of entry in the retail market could be higher.

Stand-alone retailers are significantly disadvantaged over those that are vertically integrated. Contracts and opportunities exist but are limited in reality.

Vertically integrated retailers seem to be absorbing losses in their retail businesses at the moment. It's hard to make a buck, and entry is low. However new-entrant generators are joining the market in record numbers at the moment. Barriers to entry seem low.

Of the opinion that it is very hard to have a level playing field where there a few huge incumbent gentailers that are owned partially by government.

Respondents were also concerned that the inability to access hedge funds or trade on the ASX was a barrier for new entrants. This was seen to be difficult for retailers without generation capability and generators who can't obtain long-term off takes. Also options to manage peak prices were limited.

Retailers without generation capability have a fundamental disadvantage. See previous comment around the inability of non-gentailers to expand, in response to market conditions, if they do not have sufficient hedge coverage.

Retail: the inability to hedge competitively. The EA's latest report on transfer pricing was delusional. Net retailers struggle to compete against internal transfer pricing. Generators: the inability to obtain long term offtakes. Cosy incumbency.

Hedge market liquidity is poor and options to manage peak prices are limited. A new entrant retailer can only grow at the same rate as they can lock in fixed price quantities from the wholesale markets. The deeper pockets and consented generation pipeline of the incumbents is hard to compete with.

Inability to trade on ASX (due to lack of clearers) means retailers and generators are at the mercy of the large gentailers. Gentailers do not set prices based on market but their own internal mechanisms - these do not reflect what they then offer on the ASX.

7. Innovation flourishing

7.1 Results

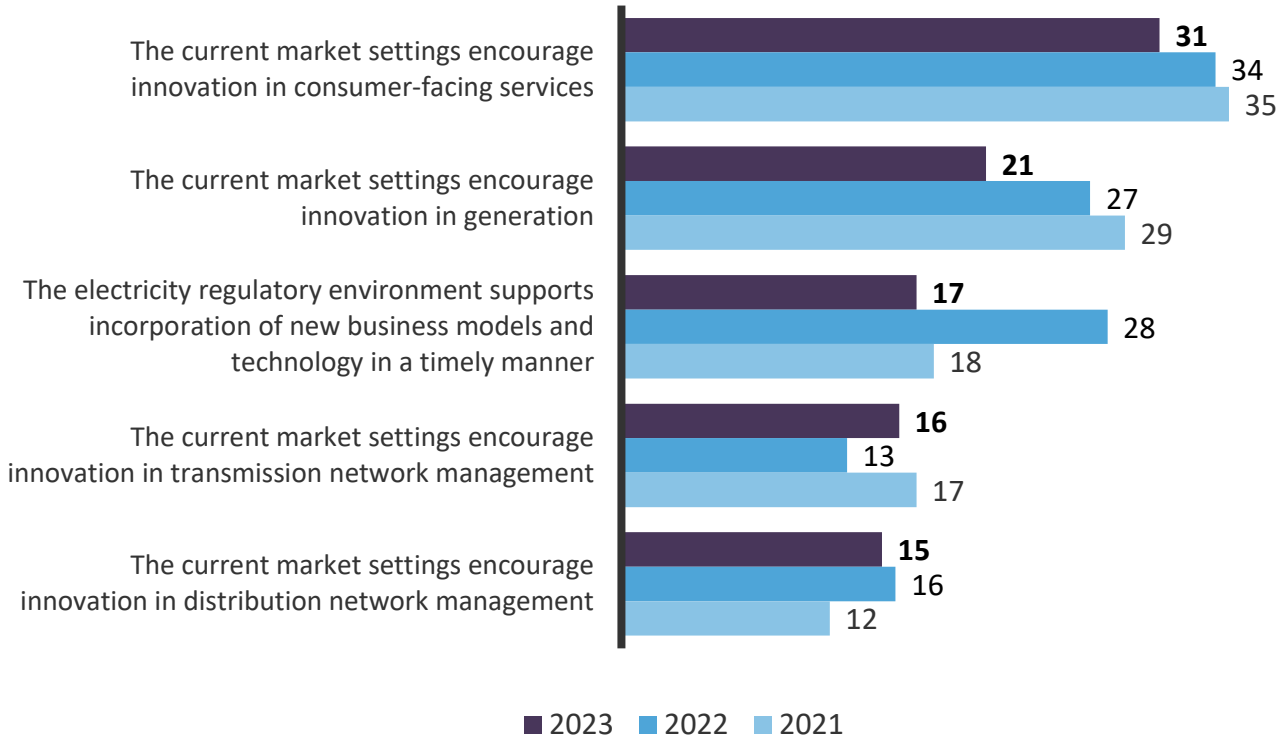
Respondents were more likely to disagree than agree on **all aspects** of innovation tested.

- 31% (down 3%) of respondents agreed (strongly agree plus agree) the current market settings encouraged innovation in **customer-facing services and generation** and 33% (up 3%) disagreed.
- 21% (down 6%) agreed that current market settings encouraged innovation in **generation** and 38% (unchanged) disagreed.
- 17% (down 11%) agreed that the electricity regulatory environment supports incorporation of **new business models and technology** in a timely manner, while 55% (up 13%) disagreed.
- 16% (up 3%) agreed that current market settings encouraged innovation in **transmission network management**, while 27% (unchanged) disagreed.
- 15% (down 1%) agreed that current market settings encouraged innovation in **distribution network management**, while 49% (up 5%) disagreed.

Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A. (%)

Base: All Respondents (n=118).

Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A. (% total agree)



Base: All Respondents (approx n=100 per survey).

7.2 Verbatim feedback

Current market settings and structure continued to be seen as barriers to innovation by respondents.

One respondent considered there was only lip service paid to innovation citing a narrow innovation framework that meant new business models were excluded, while another considered the current market settings were backwards leaning and not future focussed. Structural barriers included the large number of distributors with varied capability to support innovation and current market settings biased towards established generators making it more difficult for innovation in generation.

> *Current market settings pay lip-service only to new business models and innovation, however the framework which the innovation must exist in is so narrow that it is prohibitive to new business models and innovation.*
>
> *Overall, the market settings are backwards looking, suited to an electricity world 2 decades ago. Distribution is the most broken with 29 disparate entities with wildly variable capabilities.*
>
> *The current market settings remain biased towards the needs of the established generators, in particular. As a result the market settings do not encourage innovation in generation. Rather innovation either doesn't fit or is required to conform to the status quo.*

Adjusting market settings in a timely manner to support innovation was mentioned with an example given of the difficulties accessing metering data that was inhibiting innovation in the management of distribution networks.

> *I have ongoing concerns that the EA can adapt market settings and rules quickly enough to avoid inhibiting innovation in both the electricity sector generally and the distribution networks specifically. For example, access to metering data is critical to innovation in the management of distribution networks,*

and this has been evident for many years now. The pace of the EA's inquiry into access to metering and likely timescales for an intervention to relieve this issue are glacial, to put it charitably.

Some respondents considered that the regulators and regulatory environment were the main barriers with timeliness of these processes also mentioned again. Exemptions issued by the Authority, requirements for resource consent from local councils and Transpower processes were cited. It was noted that some of these are outside the Authority's control.

What is the definition of 'timely'? - the EA can issue exemptions so that new business models can be piloted but this process could take over 6months.

Timely manner???1. I met with Waikato District Council 9 months ago to apply for resource consent, but they're only 30 days into the RMA time frame. I estimate it will have cost about 3.5x that initial quote when RC is finally granted.2. Transpower took 9 months to provide an initial assessment. Transpower advised we I have a 3 year wait to be connected to the grid.

Rate of regulatory change does not keep up with the pace of change required.

Regulatory environment not supportive of innovation such as REZ - TPM does not support this new way of thinking. Market settings need to allow all parties to have DG - current limits in Code do not support this.

For some respondents the Code was a barrier to innovation with slow processes for Code changes mentioned, as well thinking the Code was highly prescriptive and out of date.

Management of applications/submissions for Code Changes, to allow for innovation and efficiency gains.... are embarrassingly slow, even for "Wellington".

The Code is highly prescriptive and slow to change; it does not support new tech and business models as a result. Because tools and processes were built to meet Code they are also slow to change.

Part 4 regulation of networks provides for innovation in distribution and transmission: the Code is more of a handbrake because technology has moved on and it's out of date.

For some respondents the lack of consistency and standardisation across the distribution sector contributed to less innovation in the distribution sector.

On the distribution side, there needs to be standardisation of equipment for things like EV charging. Either the regulator or central government needs to make a decision and provide certainty so that innovation can occur without the risk of investing in technology that becomes obsolete.

Network innovation currently is limited in part due to the nature of monopoly of their assets and regulated returns reducing the incentives for innovation.

Lines business regulation is still focused too much on the rear-view mirror. It discourages regulated businesses from building for the decarbonised future.

Notwithstanding some respondents considered there was innovation occuring especially with respect to consumers. There was perhaps more innovation among retail (IT, sales and marketing) than generation in part due to the lower cost of innovation in the retail sector among smaller retailers. Smaller independent retailers were also seen to be more innovative than the larger gentailers.

Generally the competitive aspects of the market support innovation and there are examples of that both in retail and generation. Retail likely faces high innovation incentives than in generation due to the lower costs of innovation (primarily IT and sale and marketing type costs).

Innovation in consumer-facing services is occurring amongst the smaller, generation less, independent retailers…The big gentailers have poor records of customer-facing innovation and are not incentivized to move beyond what they know as they have stable customer bases and little need to compete for customers.

Innovation for residential consumers comes primarily through new independent retailers, but it is very difficult now for these retailers to hedge their respective risks, so innovation suffers as a result.

8. Competition

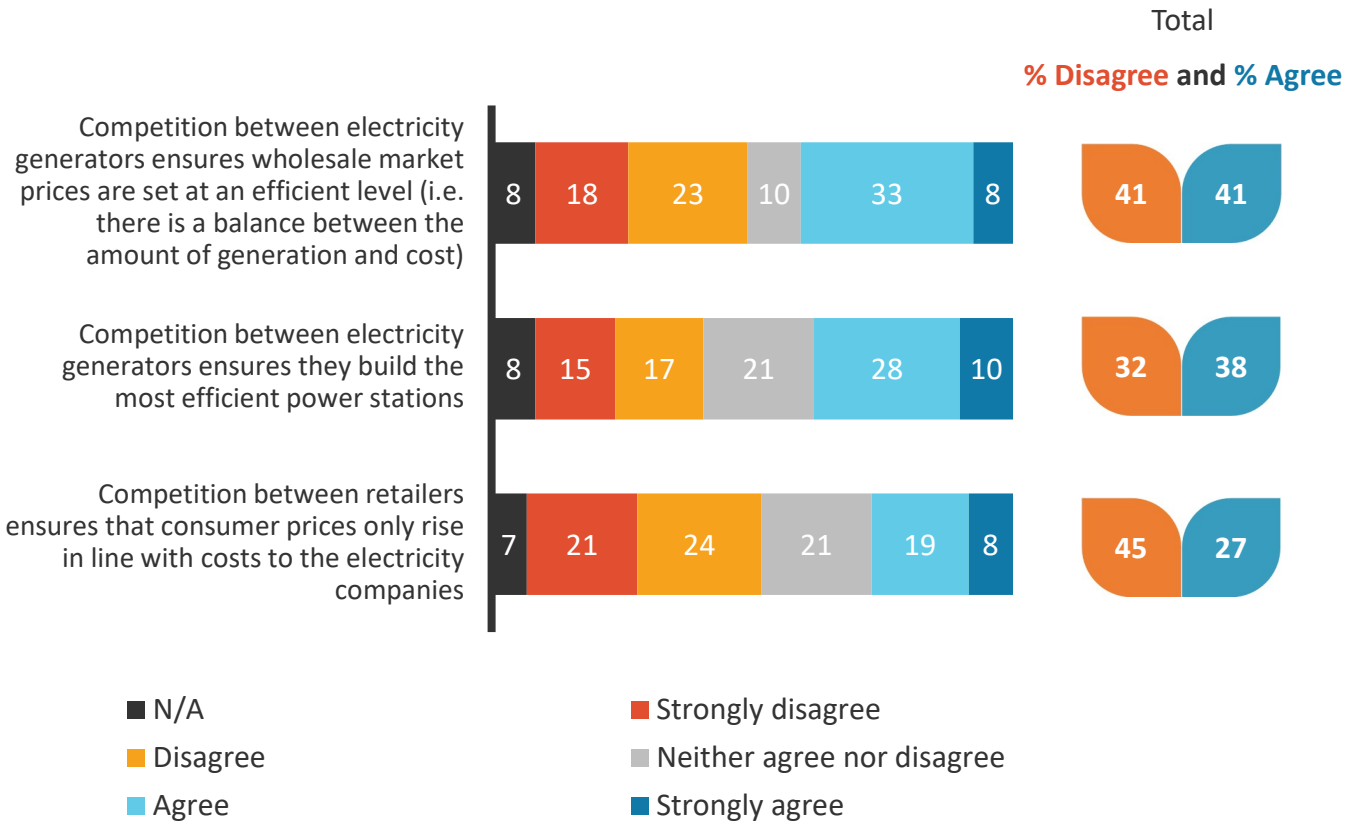
8.1 Results – Competition in the Electricity Sector

There was stronger agreement this year that competition between **electricity generators** ensures wholesale market prices are set at an efficient level, with 41% (up 9%) agreement (strongly agree plus agree). However over two fifths (41%, down 5%) also disagreed (strongly disagree plus disagree) and 10% (down 1%) were neutral.

Agreement that competition between **electricity generators** ensures they build the most efficient power stations remained steady, with38% (up 2%) agreement. Thirty-two percent (down 7%) disagreed and 21% (up 9%) were neutral.

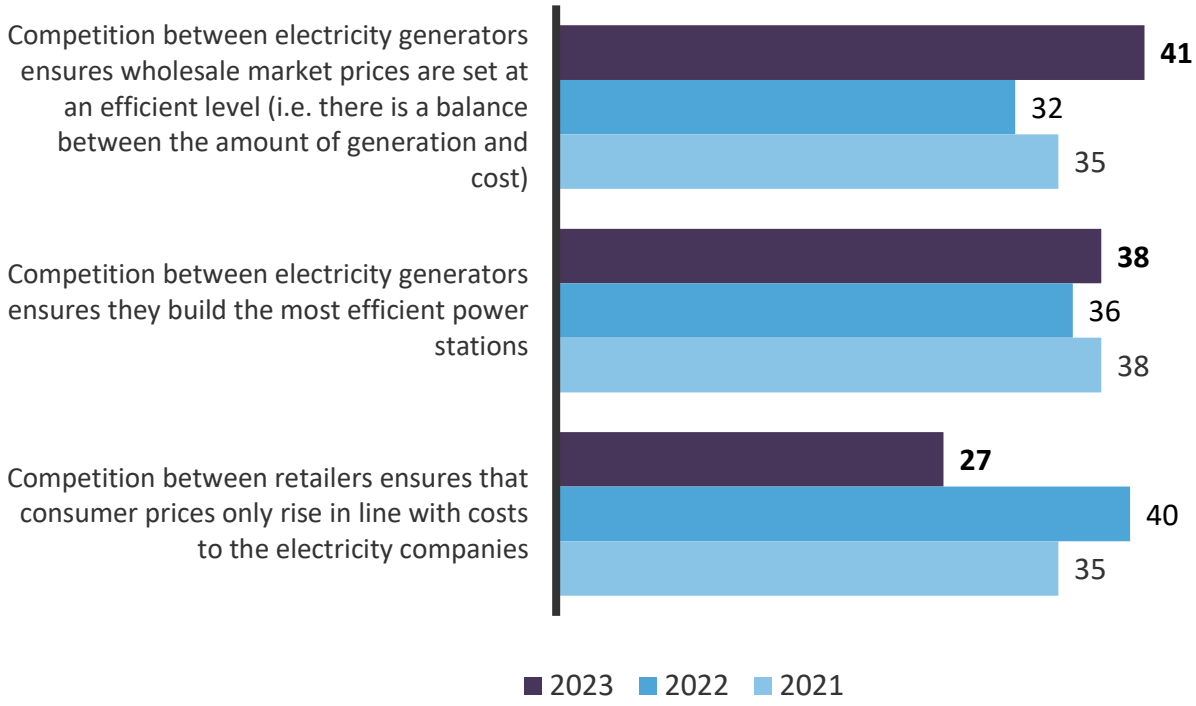
However, agreement that competition among **retailers** ensures that consumer prices only rise in line with costs to the electricity company fell 13% to 27%. Forty-five percent (up 6%) disagreed and 21% (up 6%) were neutral.

***Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A.* (%)**



Base: All Respondents (n=118).

Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A. **(%total agree)**



Base: All Respondents (n=100 per survey).

8.2 Results – Prices in the Electricity Market

Similar to last year, levels of agreement and disagreement levels were varied for prices in the electricity market reflecting the outcomes expected in a workably competitive market.

Higher levels of agreement than disagreement for:

37% (up 3%) agreed (strongly agree plus agree) the **Spot market prices** reflect the expected outcomes, while the 29% (down 5%) disagreed (strongly disagree plus disagree).

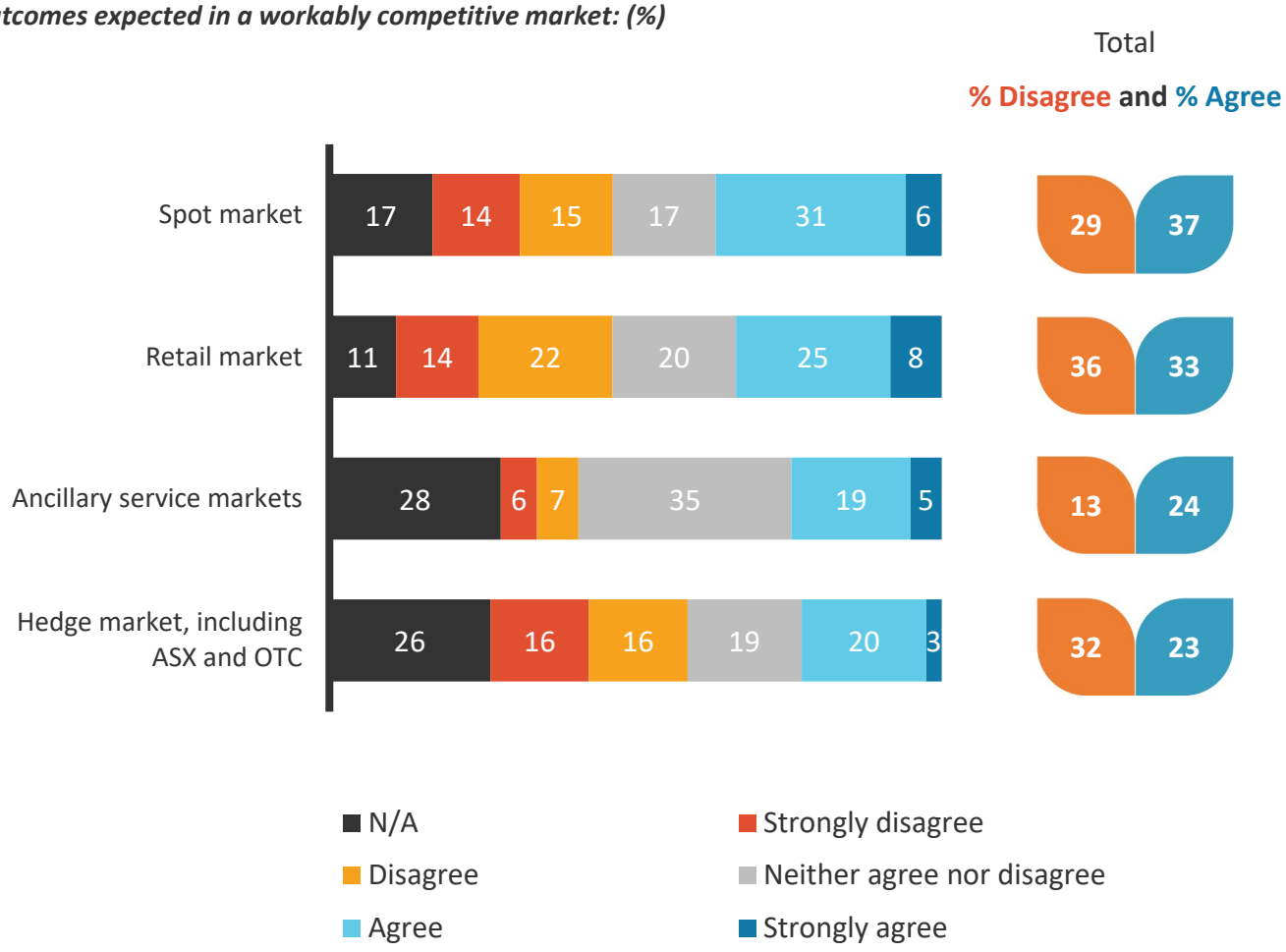
24% (up 2%) agreed that **ancillary service markets** reflected outcomes expected, while 13% (up 4%) disagreed.

Lower levels of agreement than disagreement for:

33% (down 8%) agreed that the **Retail market prices** reflect the expected outcomes, while 36% (up 6%) disagreed .

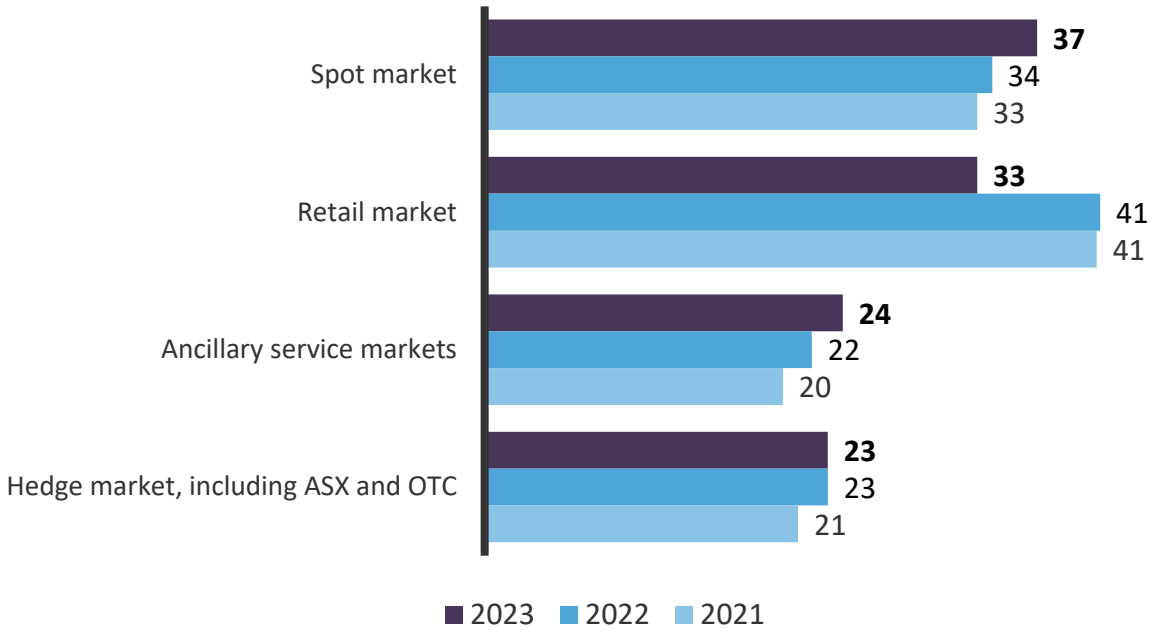
23% (unchanged) agreed that **hedge markets**, including ASX and OTC prices, reflected outcomes expected, while 32% (up 5%) disagreed.

Q: Please rate your level of agreement that prices in the following electricity markets reflect the outcomes expected in a workably competitive market: (%)



Base: All Respondents (n=118).

Q: Please rate your level of agreement that prices in the following electricity markets reflect the outcomes expected in a workably competitive market: (% total agree)



Base: All Respondents (approx n=100 per survey).

8.3 Verbatim feedback

Several factors were identified by respondents that indicated competition does not ensure efficient operations and pricing structures and that prices in the electricity market do not reflect the outcomes expected.

Many respondents were concerned about the lack of competition among generators and the wholesale electricity market.

Support for this view included; a lack of switching providers by a significant number of consumers, lack of competitive pricing by generators, monopoly power held by hydro generators, wholesale pricing higher than it should be and a lack of competition in the new generation market.

> *The Authority needs to realise that 'workably competitive' markets can still experience market failure and thus need some form of regulation to push them towards more competitive outcomes. It's not durable to view a market in which a significant number have never switched provider as being suitably competitive.*
>
> *Generators seem to be pricing in a "risk premium" into their offers and hedge / ASX offers, which sees prices above what could be expected in an efficient market. The increase in hydro storage for winter does not seem to be reflecting in current prices. Concern that hydro generators still have monopoly power in the market and are generating excess profits.*
>
> *The Authority's wholesale market review provided robust evidence that wholesale prices are higher than they should be.*
>
> *I don't have confidence in the wholesale electricity market. Too few participants on the supply side. Open to gaming and market power.*
>
> *Competition in the new generation market is weak and is further weakened by unwieldy consenting processes.*

In addition the retail sector was called into question with respondents considering competition was not occurring as well as it should.

While one respondent considered retail prices were higher than expected, another view was that gentailers were subsiding retail prices making it difficult for new entrants. Also mentioned was that the retailers did not seem to pass onto consumers any network price falls but would pass on network price rises.

> *I believe retail prices are artificially high due to lack of competition in the current retail market.*
>
> *Consistent with my comments for prior questions - the retail market is not workably competitive. Retail prices have not risen in line with the cost of being a retailer. Incumbent gentailers subsidise their retail business profitability from their generation business.*
>
> *Despite network prices falling (at times) we very rarely if ever see a corresponding reduction in retailer prices to consumers. However, when network prices rise these are almost always immediately pass on to consumers in retailer pricing.*

Pricing was also mentioned by respondents in terms of spot pricing and hedge markets as not supporting competition in the electricity sector.

Large generators were seen to hold the power in the spot market. In addition prices in generation costs were seen to be shareholder driven rather than affected by the needs of the market.

> *Large generators with dispatch flexibility retain significant market power in spot market, long-term PPAs and in new generation capex investment.*
>
> *Have a look at how prices have increased to the commercial / industrial market over the past 5 years. It is way out of kilter with the increase in small commercial and domestic. And offline with generation costs. Note that any studies e.g. the EPR looked primarily at domestic and small commercial. I don't believe anyone is looking at larger customers.*
>
> *While generator pricing creates tension and provides competition. Reporting to shareholders incentivises putting own needs above those of the market as a whole.*

Some respondents commented on the way the spot market price was set considering the process was not working as well as it should to support competition.

> *The wholesale price (as published on the ASX) is set off of the SPOT market price, not the cost of generation plus margin. The SPOT market price is set using marginal pricing not a weighted cost average. Therefore the wholesale price is ABOVE the retail rate, this is ridiculous.*
>
> *The spot market is suffering from some serious externalities as identified in the EA's Market Competition Review. While the spot market works if the inputs are right, the market, in and of itself, doesn't guarantee the absence of biases created by externalities.*

Concerns about the hedge market were also raised mentioning asymmetric risk exposure and poor liquidity. One respondent suggested that intervention was needed.

> *The hedge markets are poor, exhibiting irrational herd behaviour, largely due to asymmetric risk exposure and poor liquidity.*
>
> *In July 2022 Concept Consulting noted long term hedge prices are well above the long run marginal cost of new generation.*
>
> *The hedge market has long been treated too laisse faire and needs some design, even if that means some intervention.*

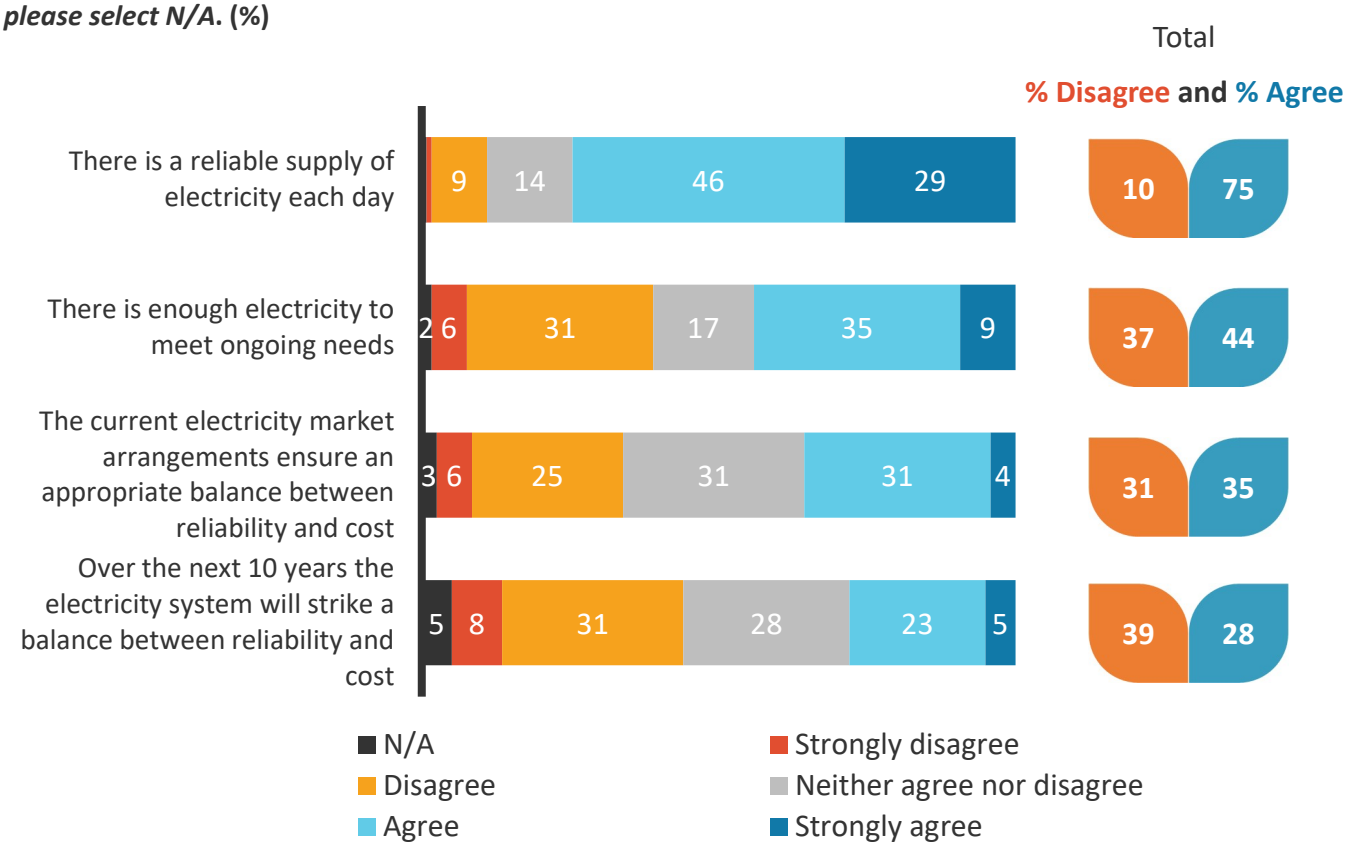
9. Reliability

9.2 Results

While reliability of electrical supply continues to rate highly; this has fallen to 75% agreement there is a reliable supply of electricity each day, down 10%. In addition, factors tested that contribute to reliability fell this year.

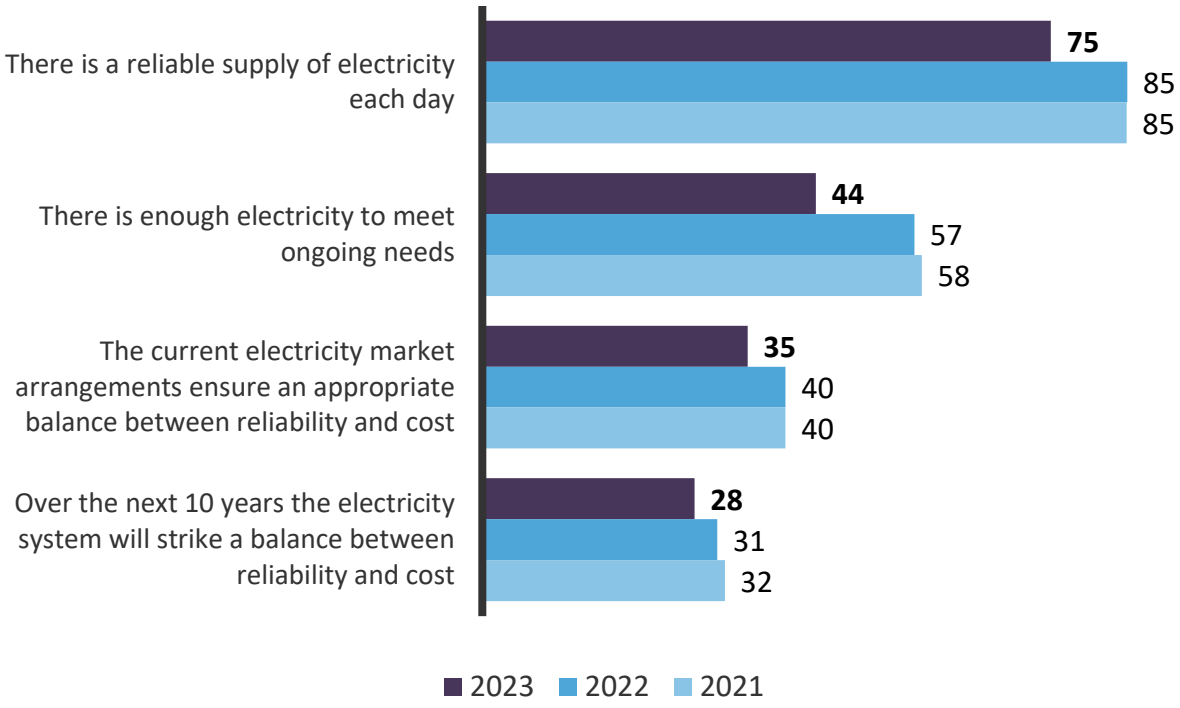
- Forty-four percent (down 13%) agreed there was enough electricity to meet ongoing needs; 37% (up 16%) disagreed.
- Thirty-five percent (down 5%) agreed the current electricity market arrangements ensure an appropriate balance between reliability and cost. 31% (up 3%) disagreed.
- Twenty-eight percent (down 3%) agreed that over the next 10 years the electricity system will strike a balance between reliability and cost. However, a larger proportion disagreed (39%, up 3%).

***Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A.* (%)**



Base: All Respondents (n=118).

Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A. (%)



Base: All Respondents (approx n=100 per survey).

9.3 Verbatim feedback

The majority of respondents were concerned about the risks to reliability of supply with increased demand due to decarbonisation and New Zealand's climate change response. Also impacting reliability was insufficient generation to meet New Zealand's electrification goals.

> *From presentations and forecasts on future demand that I have seen, there is clearly insufficient generation available today to meet ongoing needs. That is if the significant amount of renewable supply continues to be provided to the Tiwai smelter.*
>
> *The system is short of electricity generation in a dry year.*
>
> *Key uncertainties for the future include: nature and extent of demand growth and in particular the electrification of transport and process heat.*

A number of respondents referred to the significant investment that will be required to meet future supply and demand requirements. Concerns about how the market can support this investment were raised. It was noted that the costs of investment would also impact consumers with these impacts yet to be well understood.

> *There are questions about peak capacity for this Winter. I am not convinced the market can support new investment in security of supply. Ultimately, the system will balance reliability and cost because it will have to, but I doubt that it will with the current settings.*
>
> *Some forecasts predict a doubling of current generation will be required to meet future demand including the electrification of entire industries and a complete move away from utilising fuels for generation that release carbon.*
>
> *The next decade will require significant investment to meet decarbonisation goals and changing consumer preferences (e.g. EVs). This investment in renewable generation, transmission and distribution will be recovered from consumers, who will also be paying for their own electrification of load. These*

costs will currently all fall on consumers, which is a big adjustment. That said, consumers will save money on fuel and gas.

A number of respondents considered that government intervention and regulation would be required in the future to help meet government policy targets e.g. 100% renewable by 2030. Market restructuring and redesign were mentioned as well as adjusting the regulatory environment such as addressing first mover disadvantage.

The current situation revives memories of the post-war and the pre-Think Big environment, with the necessity for government intervention and 'picking winners' with market restructuring becoming more likely.

NZ has traditionally worried about supply in terms of energy. We do have a variety of fuels to provide an overall adequate supply in the long run. However, the issue is how to manage peaks - and this is not certain. In fact we are seeing signs that intervention is consistently needed to provide reliability. The market design (or the interpretation of the market design) is failing to deliver to the capacity problem.

To enable this to be achieved in the next 10 years, regulatory environment may need adjusting to remove the first mover disadvantage. Will get there but depends how easy we may it and remove barriers that just increase cost to consumers.

Of concern affecting reliability was the cost of achieving it. Respondents considered resilience, reliability and cost as key issues facing the industry and New Zealand, with increasing investment in infrastructure in the generation, transmission and distribution sectors required.

Upgrades to aging distribution networks and getting more capacity out of GXP's will be increasingly costly.… EDB's all have the long rural feeders that have low numbers of customers and large costs associated with maintaining the supply to them. These costly customers still look to be cross-subsidised across from other groups. The actual cost of maintaining what there is seems to be ever increasing cost.

The next decade will require significant investment to meet decarbonisation goals and changing consumer preferences (e.g. EVs). This investment in renewable generation, transmission and distribution will be recovered from consumers, who will also be paying for their own electrification of load. These costs will currently all fall on consumers, which is a big adjustment. That said, consumers will save money on fuel and gas.

In addition some respondents commented that current views of reliability and resilience will need to be reviewed in light of electrification.

Reliability and resilience settings will need to be re-thought given the growing dependence on electricity to power our economy and lives.

As the %RE grows, and particularly past 95%RE, reliability could suffer. Spot prices will become more volatile, with long periods of very low prices, interspersed with dry years, scarcity and other spikes. If investors in new generation see the volatility as a barrier, they will use higher discount rates (target RoIs) in financial models for new generation and will seek larger premiums in the hedge and contract markets, i.e. increased risk will lead to higher hedge and contract prices. This may already be happening.

10. Efficiency

10.1 Results

The New Zealand Electricity Market

Agreement that New Zealand's Electricity Market was efficient is varied, with both generation and distribution recording falls in levels of agreement.

- 54% (up 1%) agreed (strongly agree plus agree) that the New Zealand electricity market ensures electricity is **transmitted** efficiently; 10% (down 4%) disagreed (strongly disagree plus disagree).
- Similarly, 51% (down 4%) of respondents agreed that the New Zealand electricity market ensures electricity is **generated** efficiently; 26% (down 2%) disagreed.
- A smaller proportion agreed (40%, down 5%) that the New Zealand electricity market ensures electricity is **distributed** efficiently; 27% (up 6%) disagreed.

New Zealand's Wholesale Market and New Zealand's Hedge Market

A majority of respondents agreed that NZ's **wholesale markets** efficiently coordinate electricity production and consumption, while only a fifth agreed that the **hedge market** efficiently coordinates electricity production and consumption.

Agreement levels were similar for both wholesale market/hedge market that they efficiently facilitate timely investment in the electricity system.

Neutral or not applicable responses remained high, with between 23% to 48% of respondents being neutral or N/A responses

Excluding wholesale market efficiently coordinates electricity production and consumption, disagreement scores were generally higher than agreement. This was similar to previous years and indicates that wholesale and hedge markets may not support efficiency or timely investment as well as they should.

Wholesale market

55% (up 4%) of Respondents agreed (strongly agree plus agree) that New Zealand's **wholesale market efficiently coordinates electricity production and consumption**; 22% (up 3%) disagreed.

24% (down 1%) agreed that New Zealand's **wholesale market efficiently facilitates timely investment in the electricity system**, 43% (up 6%) disagreed.

Hedge market

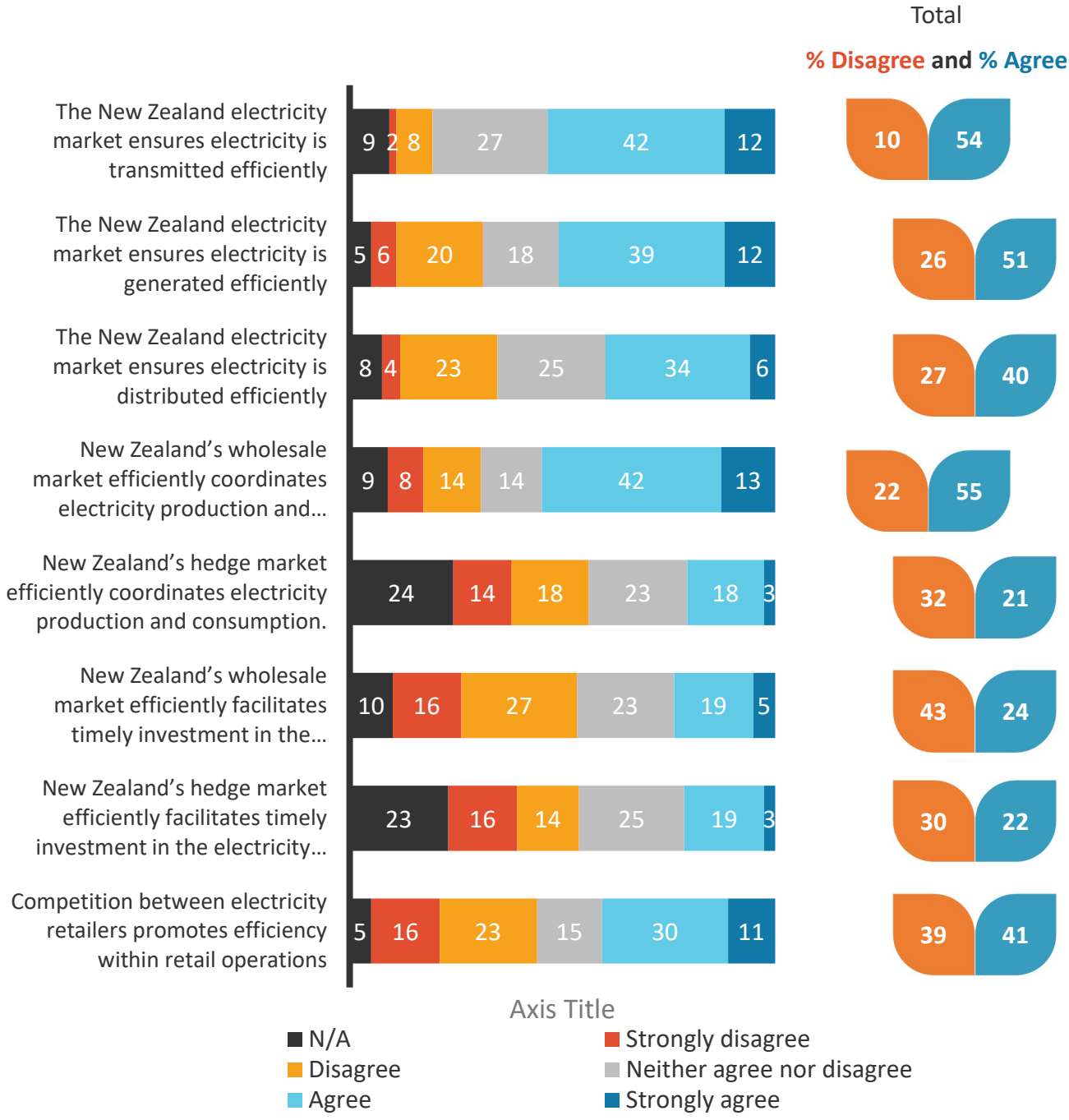
21% (unchanged) agreed that the **hedge market efficiently coordinates electricity production and consumption**, 32% (up 5%) disagreed.

22% (up 7%) agreed that the **hedge market efficiently facilitates timely investment in the electricity system**, 30% (unchanged) disagreed.

Competition promoting efficiency among retailers

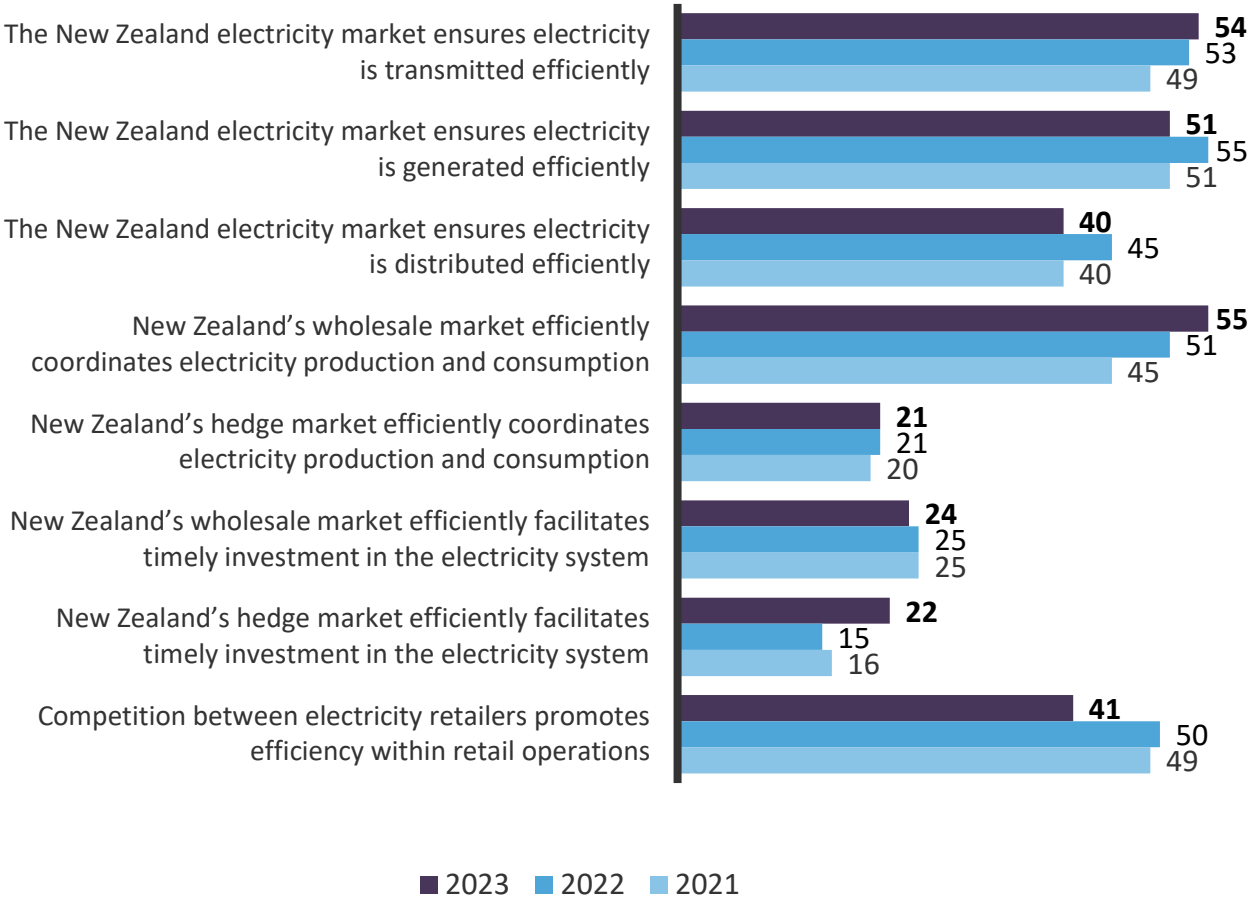
Agreement fell to 41% (down 9%) (strongly agree plus agree) **that competition between electricity retailers** promotes efficiency within retail operations, while 39% (up 11%) disagreed (strongly disagree plus disagree).

***Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A* (%)**



Base: All Respondents (n=118).

***Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A* (% total agree)**



Base: All Respondents (approx n=100 per survey).

10.2 Verbatim feedback

Respondent comments suggest that pricing continues to be a concern that impacts on the efficiency of the electricity system.

For some respondents the Transparent Pricing Methodology was seen to be out of date, not working as well as it should, and needs to be reviewed to be fit for purpose for the current electricity environment.

> *The new Transmission Pricing Methodology may have been appropriate 10 years ago but now the loss of the peak demand ACOTS signal is resulting in perverse outcomes, unintended consequences and not a small degree of scrambling from Transpower and the EA.*
>
> *Is TPM working as it should.*
>
> *TPM needs to be reviewed to ensure it is fit for purpose in the current environment as it references the past too much.*

While one respondent mentioned the hedge market cannot be efficient if not all participants can trade. In addition the short-term horizon of the hedge market did not support generation investment.

> *The hedge market can't be efficient if numerous parties are not able to trade…The short time horizon of the hedge market does not efficiently facilitate new generation investment… new entrant retailers cannot survive with the current settings - this is not efficient.*

A few respondents commented that the wholesale market was not efficient if spot pricing was above the underlying costs or that wholesale average prices were too high.

> *…. The wholesale market can't be efficient if spot prices are above underlying costs. Incumbent generators are incentivised to maximise revenue for existing generation assets and keep supply tight.*
>
> *Long term wholesale prices have become set a step change higher than traditional pricing and the level the market fundamentals would seem to support. Wholesale average prices are too high.*

For some respondents the distribution sector was not seen as efficient due to the large number of distributors. This large number of distributors was considered to be too diverse and variable and added to inconsistencies which contributed to inefficiency.

> *Distribution is far too disaggregated between many small inefficient operators with inadequate resources and low purchasing power. Their diversity also creates costs for electricity retailing and metering.*
>
> *For distribution to be properly efficient all EDBs need to be subject to PQ regulation.*
>
> *The New Zealand electricity system from a hardware point of view is generally very good at moving the electricity on the transmission network and is reliable, I do believe this varies considerably when it comes to the distribution network level depending on the network.*

The retail sector also contributed to perceived inefficiencies through the way retail electricity was priced and also the lack of consumer switching on a large enough scale.

> *Compliance costs sitting mostly with retailers promotes inefficiency which passes costs on to consumers.*
>
> *Retail electricity pricing is often bundled with retail gas and communications packages which can result in less efficient use of both generation and distribution. Also, Retail electricity pricing often does not reflect the structures or price signals present in Distribution pricing, again effecting efficiency.*
>
> *Retail competition may not be efficient if customers aren't actively encouraged to change to more attractive retail offerings (non-movers cross-subsidise inducements paid to movers).*
>
> *As before retail competition looks good on paper but in reality, is limited by the quantity of firm wholesale supply a retailer has. Further a significant chunk of consumers have never switched. There are highly active customers who make the switch stats look better than they are.*

11. Additional feedback

Respondents were asked if they had any further comments about the questions asked in this survey, or if there was anything else they thought the Electricity Authority should know.

A number of challenges were restated here and include; energy supply challenges and the need for backup from coal and gas, the conflict between an essential service or market commodity and the influence of the larger players in the sector.

> *NZ's energy supply has strong hydro and geothermal sources and has a need to maintain coal and gas for back-up as shown by the Huntly power station. The country has a waning gas supply and has to fully import oil and will find that promised alternatives such as hydrogen energy are costly and possibly far distant.*
>
> *We have a continual conflict, is electricity an essential service or a market commodity. The Civil Defence Emergency Management act says it is an essential service, you cannot completely apply a market model to something than deemed to be an essential service.*
>
> *We are aware of the work being done by MDAG on 100%RE. But there is a big list of options, and I am really concerned this process could be captured by the big players, slowing progress. The big players have a perspective on the market which still is based on them collectively providing most of the new generation into the future.*

Several respondents encouraged the Electricity Authority to take on board the comments and suggestions and act promptly to address the key issues identified. Action suggested included; to actively work more closely with participants, to provide a stronger voice on the energy transition and to be consistent in policy direction.

Collaboration

> *Over the next decade collaboration is important. EA can support this by providing more opportunities for the industry to get together and discuss the strategic issues.*
>
> *I would love to see more representation of larger consumers on the advisory groups and more consideration of their needs and an understanding that changes such as the TPM can have devastating short-term effects in terms of price shocks.*

Policy action/ consistency

> *It feels like it's been very quiet on the improvement/working group operational front at the EA for some time now (years). There used to be a lot more industry focused improvement but very little currently. The current participant audit framework is also very cumbersome and inefficient. It needs an overhaul to reflect the actual materiality of any impact to market parties and customers.*
>
> *While things change holding consistent policy positions is key to giving investors/the market sufficient surety to invest. For instance the EA's Demand Response principles appear to have been jettisoned in favour of political expedience as part of the Winter 23 work and discussions on what does and doesn't constitute load shedding. With an added complication of seemingly clear expectations of 'voluntary' responses.*

Stronger voice in supporting the energy transition

> *I want to hear the EA take a stronger vocal leadership role in the energy transition. Backing the market design it thinks will get us there in the time frames expected and why, acknowledging the trade-offs that will need to be made, and which trade-offs it thinks are the less impactful. If you don't think the energy market will deliver I suggest you provide a road map of changes you will implement. I think even an unpopular position well publicized, is better than no position.*

12. Appendices – Full list of new products/services offered to consumers

In the past 24 months, has your organisation provided new products or services to consumers? - Yes (please specify the new product/service)
New pricing plans • Various tariffs and digital services. [*Both generator & electricity retailer ("Gen-tailer")*] • Promoting use of Night rate power in addition to Peak and Off-Peak, using time control. Community based Solar generation and consumption. [*Both generator & electricity retailer ("Gen-tailer")*] • Mass market ToU plans/non-energy services [*Both generator & electricity retailer ("Gen-tailer")*] • Load shifting incentives Payment flex [*Both generator & electricity retailer ("Gen-tailer")*] • Time-based retail pricing [*Both generator & electricity retailer ("Gen-tailer"*)] • New tariffs [*Electricity distribution business (EDB) / network/lines company*] • New pricing option [*Electricity distribution business (EDB) / network/lines company*] • Loyalty, broadband [*Both generator & electricity retailer ("Gen-tailer"*)] • Wider set of financial products [*Both generator & electricity retailer ("Gen-tailer*")] **Connections/ contracts** • Fixed term plans & customer network [*Both generator & electricity retailer ("Gen-tailer*")] • Payment plan and building up credit/smooth pay options. [*Primarily an electricity retailer*] • We launched a profiled connection that rewards new connections for reducing (or eliminating) their contribution to network peaks in areas of our network that are at, or close to, peak capacity. [*Electricity distribution business (EDB) / network/lines company*] • New connections [*Primarily an electricity retailer*] • Operating envelope agreements - commercial contract [*Electricity distribution business (EDB) / network/lines company*] • All sorts from new connections for wind farms, through new electrode boiler supplies to a RAPS system. [*Electricity distribution business (EDB) / network/lines company*] • A range of new connection services New prices for our retailer customers [*Electricity distribution business (EDB) / network/lines company*] **Customer engagement and support/support for vulnerable customers** • EV charging Hot water control [*Primarily an electricity retailer*] • Goodnights (3 hours of free power) -dream charge EV charging -wireless broadband -mobile [*Both generator & electricity retailer ("Gen-tailer*")] • Outage app on phone/computer [*Electricity distribution business* (*EDB) / network/lines company*] • Outage App [*Electricity distribution business (EDB) / network/lines company*] • Further Hardship support [*Both generator & electricity retailer ("Gen-tailer*")] **EV support** • Partnering with a local body to electrify bus fleet [*Electricity distribution business (EDB) / network/lines company*] • Mobile EV charging [*Both generator & electricity retailer ("Gen-tailer*")] • EVerywhere (energy roaming for EV public charging) [*Both generator & electricity retailer ("Gen-tailer*")] • EV Plans [*Both generator & electricity retailer ("Gen-tailer*")] • EV charging [*Electricity distribution business (EDB) / network/lines company*] **Solar/ hydro/renewable energy** • Solar based pricing products [*Primarily an electricity retailer*] • Various solar plans, market-based purchasing for large consumers, VPP, etc. [*Primarily an electricity retailer*] • Facilitated PV Solar / DG [*Primarily an electricity retailer*] • Grid scale solar PV connection [*Electricity distribution business (EDB) / network/lines company*] • Solar Plans [*Both generator & electricity retailer ("Gen-tailer*")] • Solar PPA [*Both generator & electricity retailer ("Gen-tailer*")] • Solar generation [*Primarily a generator*]

In the past 24 months, has your organisation provided new products or services to consumers? - Yes (please specify the new product/service)
Tech solutions • Data platforms [*Service provider or agent (e.g. hedge market agent*)] • Telco [*Both generator & electricity retailer ("Gen-tailer"*)] • Connectivity between EDB and Flexibility Suppliers utilising open International Standards (openADR). Energy benchmarking across public sector assets utilising meter data from retailers under code provisions [*Service provider or agent (e.g. hedge market agent*) • Broadband, Mobile phones [*Both generator & electricity retailer ("Gen-tailer"*)] • Fibre Connection [*Electricity distribution business (EDB) / network/lines company*] • Mobile & Vehicle chargers [*Both generator & electricity retailer ("Gen-tailer*")] • Our courses are now all online (used to be all in-class room) [*Consultancy*] • Telco [*Both generator & electricity retailer ("Gen-tailer*")] • Data Analytics Fibre offering [*Service provider or agent (e.g. hedge market agent*)] • Telco – Broadband [*Both generator & electricity retailer ("Gen-tailer*")] • Delivery of RTP Generation Queue and supporting details Engagement on REZ [*Transmission company*] • Energy sharing technologies, primarily hardware but some minor software as well. [*Primarily a generator*] **Carbon trading and related services** (Power Purchase Agreements) • Carbon reporting and PPA advice on sleeving etc [*Consultancy*] • TPM Realtime pricing Carbon trading [*Transmission company*] • PPA Consultancy [*Consultancy*] • Management of progressive electricity purchasing [*Service provider or agent (e.g. hedge market agent*)] **Energy Research** • New Energy Plans, Decarb plans [*Both generator & electricity retailer ("Gen-tailer"*)] **Generation** • New generation assets have been commissioned [*Primarily a generator*] • New load and generation connections [*Transmission company*] **Other** • Frequency response services. Non network solutions. [*Other*] • DNL, DNG, and DD [*Service provider or agent (e.g. hedge market agent*)]