

# Electricity Authority survey of electricity industry participant perceptions 2021/22

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## Introduction

In May and June 2022, the Electricity Authority (Authority) commissioned AK Research (AKR)<sup>1</sup> 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.

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 Zealander's lives, prosperity and environment through electricity.

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.

Results from this perception survey have been included in the Authority's Annual Report 2021/22 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.

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.

### **Concerns about long term reliability and resilience in a low-emissions future**

Respondents commented that the current market settings ensure daily reliability, but they were less confident about future resilience. Some respondents held the view that this would impact the transition to a low-emissions economy, as the current market settings were not designed for electrification.

Facilitating an efficient transition to a low-emissions economy is one of the Authority's key strategic ambitions for the sector. The Authority has several significant, transformational, and interrelated workstreams to support the transition to low-emissions energy. This includes work to examine wholesale market operation, both currently and under a 100% renewable supply, and future security and resilience in the face of technological and other changes. These initiatives contribute to our role of kaitiaki of the electricity sector.

The Authority is implementing changes arising from the Electricity Industry Amendment Act 2022 (EIA Act), which received Royal assent in August 2022. The EIA Act seeks to ensure the Electricity Industry Act 2010 provides an effective regulatory framework for the electricity industry in view of rapidly evolving technologies and business models. The EIA Act provides the Authority with greater agility to respond to the needs that arise from the transition to a low-emissions energy.

The Market Development Advisory Group (MDAG) is investigating how the wholesale electricity market might operate (including how prices would be discovered) under a 100 percent renewable electricity supply. The Authority is supporting MDAG's delivery and publication of an

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<sup>1</sup> AKR is an independent research company, offering qualitative and quantitative research.

options paper and recommendations to the Authority. We plan to start considering MDAG's recommendation in the 2022/23 year.

The Authority is in the second year of the Future Security and Resilience (FSR) programme to help ensure that our power system remains secure, resilient, and promotes long-term benefits for consumers through the transition to a low-emissions economy. In August 2022, the Authority released a paper titled *Future Security and Resilience: Implementing Activities for a Secure and Resilient Low-Emissions Power System*, setting out a roadmap of activities to address opportunities and challenges expected to affect our current ways of ensuring secure and resilient power supply. The Authority has also begun work on the highest priority activity from the roadmap, a review of common quality requirements in Part 8 of the Electricity Industry Participation Code (Code) and is seeking views on how the power system could evolve in the future.

A critical part of building trust and confidence in the reliability of the electricity sector is effectively responding to challenging events and applying learnings from such events to any that may occur in the future.

In the lead up to winter 2021, New Zealand faced a dry year event with constrained electricity supply due to low hydro inflows and the tight gas market. Following this event, the Authority commissioned an independent review of how the event was managed to identify opportunities for improvement. The review showed that the system worked as intended and demonstrated the resilience of New Zealand's electricity market mechanisms. Work is currently under way to improve certainty and transparency during similar events in future.

On 9 August 2021, approximately 34,000 customers across New Zealand experienced an electricity cut without warning. In response, the Authority used its statutory powers to launch a two-phase review in response to the event. Transpower and the Ministry of Business, Innovation and Employment (MBIE) also conducted reviews.

The Authority's Phase 1 review (published in September 2021) focused on the system operator's demand allocation tool and communication processes and protocols. The Phase 2 review (published in April 2022) was wider in scope and provided a final summary of the various investigations, observations, and recommendations conducted by the Authority, Transpower and MBIE.

Progress against the recommendations is reported to the Minister on a quarterly basis and published on the Authority's website.<sup>2</sup> The response included making sure the main causes were addressed before winter 2022.

### **Calls for more proactive monitoring and greater consequences for people who breach the Code**

Most respondents agreed that the Authority actively monitors participant behaviour and market outcomes. However, respondents were less confident that the Authority holds participants to account for their actions. There was also less confidence in the role of the Authority as the kaitiaki of the electricity sector, including some confusion about the meaning of the word and what it is intended to encompass.

Building trust and confidence, both in the sector and in our role, is one of the Authority's key strategic ambitions and supports our role as kaitiaki of the electricity sector. As a regulator, it is increasingly important to build trust and confidence in the industry and regulation through greater transparency, understanding and improved behaviours.

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<sup>2</sup> <https://www.ea.govt.nz/monitoring/enquiries-reviews-and-investigations/2021/electricity-authority-review-of-9-august-2021-event-under-the-electricity-industry-act-2010/>

As kaitiaki we're looking to improve participant behaviour. This is an area of continuous improvement. We are uplifting our monitoring and compliance capability by increasing our resources and reviewing our strategy, processes, and tools. Education is a key component to achieve voluntary compliance with the Code, as well as active monitoring and timely and proportionate enforcement action.

On 5 July 2022, Electricity Authority the Authority published its *Compliance Strategy and Compliance Monitoring Framework*. The Compliance Strategy structures the Authority's compliance approach to focus its resources on the most serious and highest priority risks. The Strategy establishes guiding principles and objectives for the Authority, under which further policies and procedures will be developed for specific compliance activities such as participant registration, participant auditing, education, monitoring, investigation, and enforcement.

The introduction of the EIA Act expands the Authority's jurisdiction and compliance regime, allowing us to ensure industry participants are held to account with greater enforcement penalties for breaches of the Code.

The Authority actively monitors trading conduct as part of the new trading conduct provision which came into effect on 30 June 2021. The Authority publishes weekly reports identifying any trading periods of interest, which may form the basis for further enquiries. If staff in our Monitoring team consider that there may have been a breach, the relevant material is referred to the Compliance team.

The reviews and investigations into the 9 August 2021 event were a significant part of our compliance activities in the last year.

### **Concerns about the state of competition in the wholesale market and the impact of high prices on consumers**

Respondents had mixed views on whether competition ensures efficient operations and pricing structures. There was a small increase in the percentage of people that thought outcomes in the spot, hedge and ancillary service markets reflected a workably competitive market. Many respondents thought the current market conditions made it difficult for new entrants to enter the market.

Respondents were split on whether the electricity market was able to meet the needs of consumers now and in the future. However more respondents agreed the industry is able to meet consumer needs, when compared to the previous year. Like the consumer survey, there was concern around the high prices experienced by consumers.

Sustained elevated prices in the spot market were a key driver of the Authority's review of competition in the wholesale electricity 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.

The review showed the impact of the Tiwai smelter on the electricity market was felt in two ways. Uncertainty about the future of the smelter made decisions about new investment into generation difficult, impacting on potential supply. The New Zealand Aluminium Smelter was also offered low electricity prices to stay, and this resulted in other consumers having to pay more. The Authority estimates that this could add up to \$200 to household electricity bills each year.

In August 2022, the Authority urgently imposed a temporary restriction on very large electricity contracts that can shift market prices. This is intended to address concerns about inefficient price discrimination and consumers effectively subsidising these contracts through higher

electricity bills. The Authority is consulting on a permanent solution, with submissions due in October 2022.

At the same time, the Authority is working to prioritise and initiate workstreams to address the remaining observations from the review. Updates on this work are included as part of the Annual Corporate Plan four-monthly progress reports.

The EIA Act introduces an additional statutory objective for the Authority to protect the interests of domestic and small business consumers, in relation to the supply of electricity to these consumers. The new objective comes into effect on 31 December 2022, and work is underway to implement it.

**AKR report provided to the Authority**

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

2021/22

Prepared for The Electricity Authority

**ak** research & consulting

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# 1. Executive summary

## Low-emissions energy

In the latest survey, respondent opinion remained split on whether the electricity system will maintain reliability or support an efficient transition to low emissions energy.

Respondents cited potential risks to reliability, including the view that the current system was not working and that market settings would not support a reliable transition. They worried about the reliability, availability, and resilience in the system, which had not been designed for low emissions energy.

Also mentioned was the view that high prices were undermining confidence in the reliability of the electricity market during transition to low emissions energy.

Several respondents discussed external factors which could impact reliability and an efficient transition. This included potential Government intervention and a short-term focus and approach.

- 52% (up 4%) agreed the market will maintain reliability.
- 33% (down 4%) agreed that electricity markets settings will support an efficient transition to low emissions energy.

## Consumer centricity

Respondent opinion was again split on whether the electricity market was meeting or would meet consumer's evolving needs in the future.

Respondents who agreed that the electricity market was meeting and will continue to meet consumers' needs felt that new developments and innovation were generally beneficial to consumers and supported choice and encouraged more efficient service.

However, they also conceded that the system was not without problems, and they raised concerns that while the status quo was working there were questions on how this might change in the future.

Others took the opposite view and did not think the electricity market was meeting consumer needs now or would do so in the future. Concerns included the perceived gentailer oligopoly that made it difficult for independent and innovative retailers to enter the market. They cited the current high prices as evidence the electricity industry was not meeting consumer needs, with vulnerable populations at risk.

- 50% (up 3%) agreed that the electricity industry is meeting consumers' needs.
- 45% (up 4%) agreed that the industry will meet consumers' evolving needs in the future.



## Trust and confidence

While respondents were confident that the electricity system delivered a high level of reliability, they were less confident in the role the Authority plays as kaitiaki of the electricity sector.

Respondents identified several factors which undermined their trust and confidence in the electricity sector. These included insufficient scrutiny on gentailer behaviour and lack of monitoring of outcomes for consumers.

Some respondents looked to the Authority to hold more participants to account, with some thinking that current measures being focused on were not the right ones.

- 78% (unchanged) agreed that the Electricity Authority actively delivers a high level of reliability.
- 56% (up 4%) agreed the Electricity Authority actively monitors participant behaviour.
- 54% (down 2%) agreed the Electricity Authority actively monitors market outcomes.
- 45% (up 4%) agreed The Electricity Authority holds participants to account for their actions.
- 40% (down 8%) agreed that the electricity industry operates efficiently.
- 23% (down 14%) agreed that they have confidence in the role the EA plays as kaitiaki of the electricity sector.

## Thriving competition

Respondents again indicated that the electricity sector was not seen to be competitive for new entrants, although, there was some positive movement compared to last year.

However, respondents continued to believe that there was not a level playing field for new entrants to compete on. Difficulties mentioned included: current market conditions making it difficult to compete financially, new entrants being disadvantaged as they faced a steep learning curve, a lack of expertise and experience to be competitive, and the administrative burden that faced new entrants.

Others commented that the current vertical integration system where larger gentailers have internal hedges means business cases based on spot prices were uncertain, the sell price of future hedges provided by gentailers was below the ASX and gentailers had an unfair advantage of being able to offer discounted prices.

Also mentioned was the view that gentailers had too much power, with the largest companies seen to control and manage the sector, making it difficult for new entrants to establish sustainable and competitive businesses.

- 25% (up 6%) agreed new entrant retailers can operate on a level playing field with established retailers.
- 29% (up 11%) agreed new entrant generators can operate on a level playing field with established generators.

## Innovation flourishing

Similar to previous years, there was limited agreement across respondents that current market settings are encouraging innovation in the electricity sector.

The current regulatory settings and the regulatory environment were attributed to impeding innovation across all areas. Issues mentioned included a need for more opportunities to try new technologies, timely leadership and faster progress on changes to the Code.

Additional factors impeding innovation mentioned by respondents were views that the current market settings and structure were barriers to innovation, with some stating there was a general lack of innovation across all settings.

- 34% (down 1%) agreed the current market settings encourage innovation in consumer-facing services.
- 28% (up 10%) agreed the electricity regulatory environment supports incorporation of new business models and technology in a timely manner.
- 27% (down 2%) agreed the current market settings encourage innovation in generation.
- 16% (up 4%) agreed the current market settings encourage innovation in distribution network management.
- 13% (down 4%) agreed the current market settings encourage innovation in transmission network management.

## Competition (in the electricity sector)

There was mixed agreement among respondents that competition ensures efficient operations and pricing structures.

A number of factors were thought to contribute to competition not working as well as it should. Incumbent retailers were thought to have an advantage due to their existing customer base and also their ability to keep prices artificially low.

Also mentioned was the lack of competition among generators, gentailers having an additional advantage and concerns regarding the wholesale market settings and structure.

- 40% (up 5%) agreed competition between retailers ensures that consumer prices only rise in line with costs to the electricity companies.
- 36% (down 2%) agreed competition between electricity generators ensures they build the most efficient power stations.
- 32% (down 3%) agreed competition between electricity generators ensures wholesale market prices are set at an efficient level.

## Reliability

A large majority believed there was a reliable supply of electricity every day. This was similar to the previous year.

However, also like last year, there was less confidence in **future resilience**. There was lower agreement that there was enough electricity to meet ongoing needs; or that currently and over the next 10 years, electricity arrangements would strike an appropriate balance between reliability and cost.

Future challenges to reliability mentioned by respondents were reduced hydro flow, combined with increased demand and responses to New Zealand climate change goals.

The cyclical marketplace, where there were higher prices when there was higher demand (less supply) and vice versa, raised questions regarding electricity reliability and the balance between reliability and cost, now and over the next ten years. Future government interventions and policies were also unknowns that could potentially impact future reliability.

Concerns about future generation and high costs of electricity were also mentioned.

- 85% (unchanged) agreed there is a reliable supply of electricity every day.
- 57% (down 1%) agreed there will be enough electricity to meet ongoing needs.
- 40% (unchanged) agreed the current electricity market arrangements ensure an appropriate balance between reliability and cost.
- 31% (down 1%) agreed over the next 10 years the electricity system will strike a balance between reliability and cost.

## Efficiency

### The New Zealand Electricity Market

Participants were still split on whether the New Zealand electricity market promotes efficiency – in the areas of generation, transmission, and distribution.

- 55% (up 4%) agreed the New Zealand electricity market ensures electricity is **generated** efficiently.
- 53% (up 4%) agreed the New Zealand electricity market ensures electricity is **transmitted** efficiently.
- 45% (up 5%) agreed the New Zealand electricity market ensures electricity is **distributed** efficiently.

## New Zealand's Wholesale and Hedge Markets

Similar to last year, there was general uncertainty whether New Zealand's hedge and wholesale markets efficiently coordinate electricity production.

Hedge markets were generally rated lower than wholesale markets, suggesting hedge markets were falling short in supporting efficient or timely investment in the electricity system.

A lack of efficiency was seen to be exacerbated by the 'inefficient structure' of switching between retailers. There were also mentions about individual structure inefficiencies that lead to increasing cost and technical challenges.

Also, many respondents did not feel the hedge markets, spot, and future pricing were working as well they should.

Mentioned were the low liquidity of the hedge market, concerns about the futures curve in relation to investment needs, and the focus on the spot market

- 51% (up 6%) agreed that New Zealand's wholesale market efficiently coordinates **electricity production and consumption**.
- 25% (unchanged) agreed that New Zealand's wholesale market efficiently facilitates **timely investment in the electricity system**.
- 21% (up 1%) agreed that the hedge market efficiently coordinates **electricity production and consumption**.
- 15% (down 1%) agreed that the **hedge** market efficiently facilitates **timely investment in the electricity system**.
- Half (50%, up 1%) 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.

Several respondents sought improvements from the Authority, including the need for increased transparency of the Authority's work programme, and more communication and engagement between the Authority and participants. The Authority was also encouraged to learn from the experiences of others in the electricity industry both in New Zealand and overseas.

Several suggested that there needs to be adjustments in the regulatory settings to promote more investment in efforts to support New Zealand's climate change response, including the transition to zero emissions and a more efficient industry.

## 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.

### 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 428 randomly selected participants were invited to take part in the survey and 114 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 24<sup>th</sup> of May to the 18<sup>th</sup> of June 2022.

The maximum margin of error for sample size of n=114 is  $\pm 7.9\%$  (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=114)**

Representatives of organisations from across the electricity sector took part in the survey. Electricity Distribution Businesses (EDBs) (23%, up 4%) and Generator and electricity retailer ("Gen-tailers") (18%, down 1%) were most strongly represented. These were followed by electricity retailer (13%, unchanged), consultants (9%, down 2%) and electricity consumer representatives (7%, up 4%). Please refer to the following table for a full breakdown of respondents.

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

### **Length of time organisation active in the electricity industry – All respondents (n=114)**

68% (up 10%) of respondents had been active in the electricity industry for more than 20 years, 18% (down 6%) between six to twenty years, and 15% (down 3%) five years or under.

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

### **How electricity is purchased – Electricity Consumers (n=5)**

Three respondents apiece purchased their electricity from a retailer on fixed price tariff, one apiece purchased their electricity directly from the spot market or from electricity hedges.

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

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

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

	% (n)	2021 (n=19)	2022 (n=26)
<b>Yes</b>		16 (n=3)	65 (n=17)
<b>No</b>		37 (n=7)	15 (n=4)
<b>Unsure</b>		47 (n=9)	19 (n=5)

### **Number of participants assessed to provide non-network services as an alternative to investment in traditional network infrastructure (n=7)**

Three respondents said they had assessed one participant 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 ten participants, and the last assessed twenty-four participants.

	% (n)	2021 (n=3)	2022 (n=7)
<b>Unsure</b>		34 (n=1)	0 (n=0)
<b>1</b>		0 (n=0)	43 (n=3)
<b>2</b>		33 (n=1)	0 (n=0)
<b>4</b>		33 (n=1)	14 (n=1)
<b>5</b>		0 (n=0)	14 (n=1)
<b>10</b>		0 (n=0)	14 (n=1)
<b>24</b>		0 (n=0)	14 (n=1)

### **Number of participants assessed who are currently providing non-network services (n=10)**

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

	% (n)	2021 (n=3)	2022 (n=10)
<b>Unsure</b>		34 (n=1)	0 (n=0)
<b>0</b>		33 (n=1)	60 (n=6)
<b>1</b>		33 (n=1)	30 (n=3)
<b>2</b>		0 (n=0)	10 (n=1)

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

37% (n=42) said their organisation has provided consumers with new products or services in the past 24 months. The new products and services provided are summarised below.

	% (n)	2022 (n=10)
<b>Yes</b>		37
<b>No</b>		51
<b>Unsure</b>		12

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

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.



# 3. Low-emissions Energy

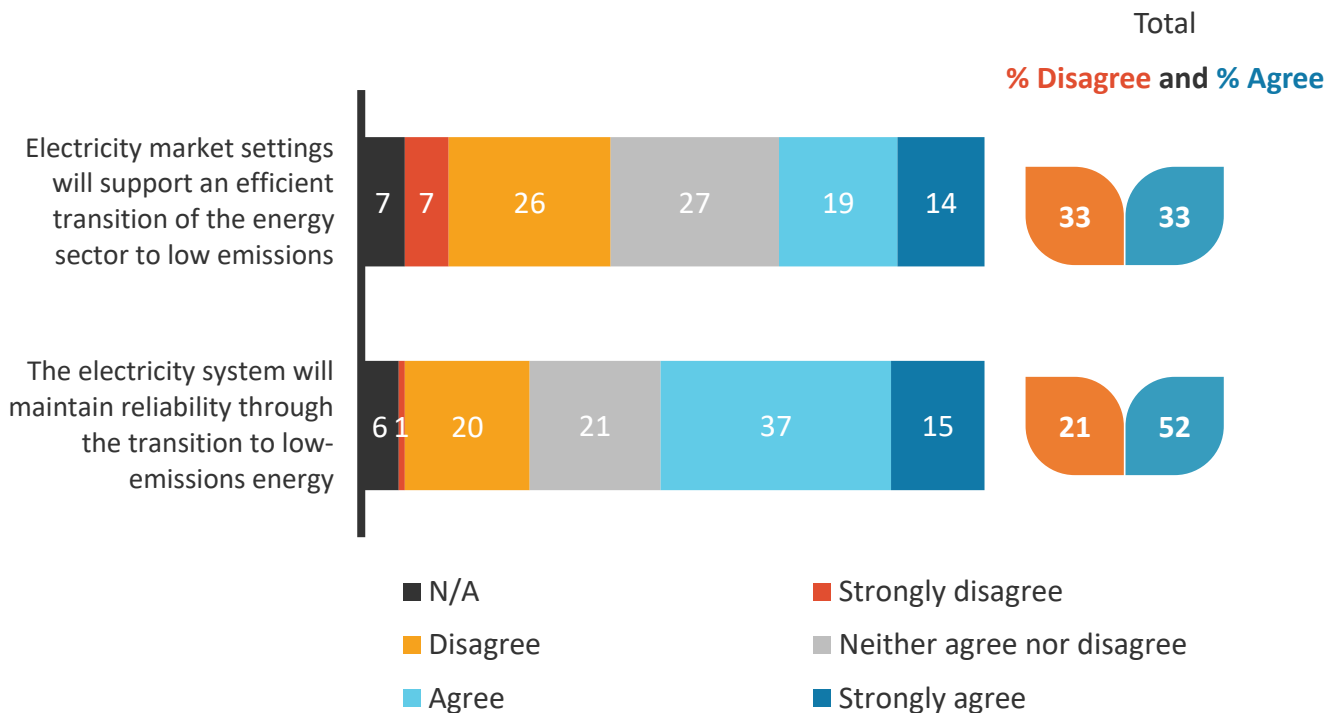
## 3.1 Results

Similar to the previous year respondents were divided on whether the electricity market settings will support an efficient transition or maintain reliability through transition of the energy sector to low emissions energy.

52% (up 4%) agreed (strongly agree plus agree) that the electricity system will maintain reliability through the transition to low-emissions energy. 21% (down 5%) disagreed (disagree and strongly disagree), while 21% (up 2%) were neutral.

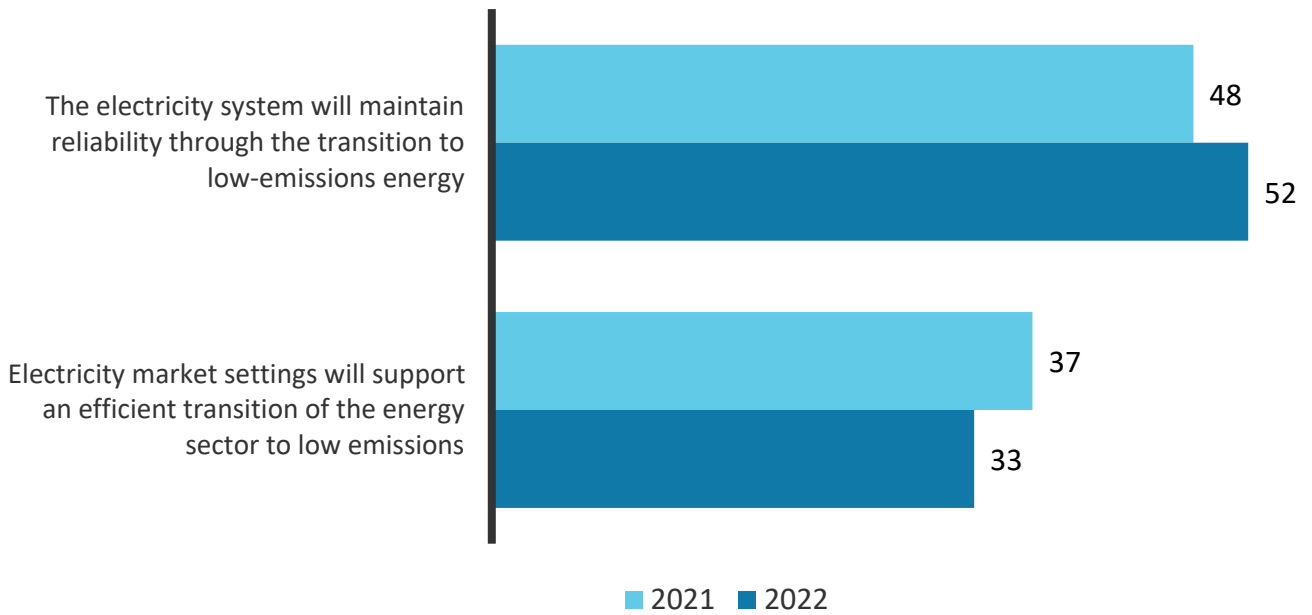
There was lower agreement with the statement that electricity market settings will support an efficient transition to low emissions energy; 33% (down 4%) agreed, while similarly 33% (down 5%) disagreed. 27% (up 11%) were neutral.

**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=114).

**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.

Respondents who felt that the electricity market would maintain reliability said this assumption was supported by the current approach and the encouragement to increase investment in renewable generation.

*As long as fossil fuel is not totally banned, renewable energy will continue to grow supported by the market demand for renewables, whilst maintaining system reliability.*

*With the work the Authority is doing under FSR and 100% renewables, some of the key concerns and issues are being addressed, but there is a lot of work required to increase widespread confidence.*

*Current electricity market settings are already driving investment in new renewable generation. There are lots of new entrants lining up, and existing players are investing in renewables. The competitive market forces are delivering these outcomes. Pricing of thermal fuels (and associated carbon) are enabling the new renewable investment.*

However, some challenges exist with respondents concerned about **market settings** with respect to the transition to low emissions energy and continued reliability.

*There is a lack of clarity around both market settings and the market system regards the transition to low emissions energy. E.g., what role if any will gas peaking play? Where will new renewable generation come from given the lack of confirmed investment? What changes will be made to the market settings following last year's wholesale market review, or via political actors (either the minister, or by political parties seeking election next year.*

*Market Settings. The wholesale electricity spot and futures pricing should be a reliable proxy for investment stimulus; however, the future investment pathway is scattered with start-ups from small to medium new business ventures, yet there is relative to their size quite muted investment plans from the larger generators who currently make up 80% of generation- why is that? Could it be that those generators are intentionally holding back investment or could it be that those generators recognise the futures market is not related to actual cost or demand.*

*Market settings were designed for a legacy operating environment and have been very slow to respond to changes in our operating environment. In particular the current capacity to process code changes to support a transition to low emissions seems to be inadequate.*

**Risks to reliability**, include concerns regarding the reliability, availability, and resilience in the system, which had not been designed for electrification.

*The transition ahead is not business as usual, as a country we're wanting to see a significant increase in the use of electricity across the economy. The system has been very supply side centric and prolonged high prices will deter the transition to electricity from other fuels. The market will not deliver the significant investment in new generation required to deliver a reliable system. Most countries around the world are not leaving the transition of the system to the market. I think more thought needs to be put into what types of government stimulus/subsidies/policies are complementary to a market but achieve the objective of accelerating the transition.*

*Reliability of the system is as important as affordability and environmental outcomes but will be dependent on the way in which our electricity systems, process and rules evolve to accommodate new technologies.*

**High prices** were also seen to be undermining confidence in the reliability of the electricity market during transition to low emissions.

*Market power issues remain unaddressed. High wholesale electricity prices driven by market power rather than underlying fundamentals can prevent NZ achieving its decarbonisation goals.*

*The marginal cost pricing mechanism is fundamentally flawed and without change the market will struggle to support transition*

*Electricity prices are going up and up, hydro generators are making windfall profits, we are running short of generating capacity, the generators are controlling the price. No one is responsible for ensuring that we have an economic and reliable supply. There is no National mechanism for ensuring that there is sufficient dry year reserve available.*

**External factors** impacting reliability and an efficient transition were also mentioned; these included government interventions and the short- term focus and approach.

*Reliability. The delivery of electricity to NZ residentials will always remain reliable and affordable as they are voters, and any loss of reliability or economic hardship sees a swift intervention from Government. Spot prices or wholesale users benefit from this security of supply however they are not protected from pricing as businesses are sacrificial and have limited impact on voting.*

*My answer assumes that there will be a clear direction from Government on climate action. If there is unjustified intervention or favouritism (e.g. of certain technologies or operation scale) then this will adversely impact the market's ability to deliver in the timescales required.*

*Carbon pricing increasingly prices coal-fired generation out of the market; it's only used when it's worth the carbon price. Would be better if more of the gas units could be used, but government screwed everything up in that industry with the exploration bans and the severe regulatory threats that discourage investment - but that's not really the electricity sector's problem. System will route to find the next best alternative. Not the electricity market's fault.*

*Market settings are too focussed on short-term optimisation but for most customers to commit to large capital items they need longer term certainty.*

Also mentioned were criticisms that the market was seen as non-competitive with a lack of incentives to provide timely and efficient services to customers.

# 4. Consumer centricity

## 4.1 Results

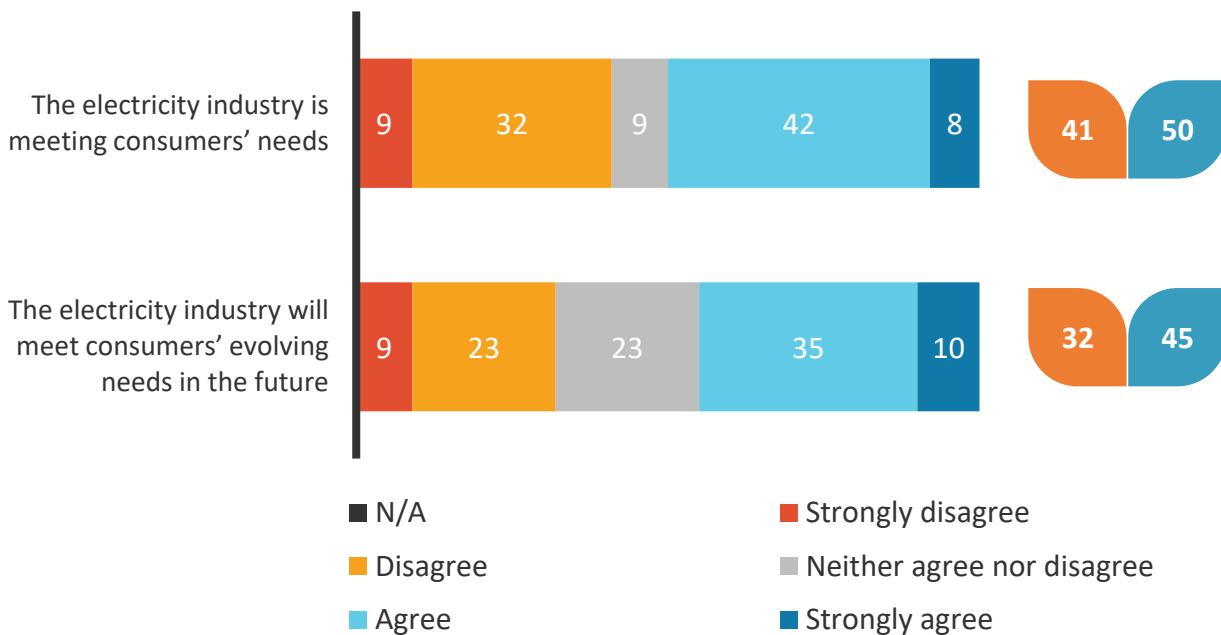
Like the previous year respondents were divided whether the electricity market is meeting or will continue to meet consumer needs.

50% (up 3%) of respondents agreed (strongly agree plus agree) that the electricity industry is meeting consumers' needs. However, 41% (down 2%) disagreed (strongly disagree plus disagree) and 9% (down 1%) were neutral.

45% (up 4%) agreed that the industry will meet consumers' evolving needs in the future; 32% (down 3%) disagreed and 23% (down 1%) were neutral or unsure.

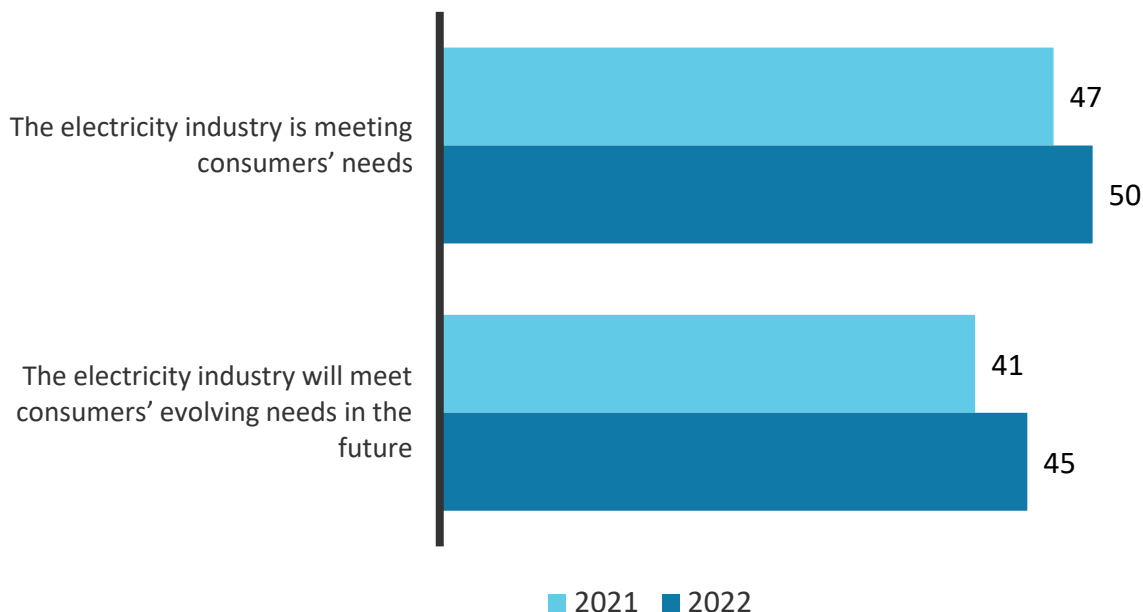
- Representatives from organisations that have been active for more than 20 years in the electricity industry were more likely to agree that the electricity industry is meeting consumer needs (58%) and will meet the consumers' needs in the future (55%), compared to those who have been active for 20 years or less (32% and 24% respectively).

**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=114).

**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

Respondents who agreed that the electricity market was meeting and will continue to meet consumers' needs felt that new developments and innovation were generally beneficial to consumers and supported choice and encouraged more efficient service.

However, concerns were raised that while the status quo was working this may change in the future, regarding lack of investment in infrastructure to support increasing electrification.

*In terms of evolving needs, this is a wait and see for us. For example, there's a concerted effort towards EVs and E-bikes. That is positive for most of NZ. But for the communities we work with, this is far from their front of mind as they deal with other issues. But that doesn't mean they can't engage in this push for EVs etc to help with energy sustainability. We as a country and you as companies need to advocate for a variety of policy levers to ensure all people can at least access this information and opportunities and then make their own decisions from there.*

*A lot of extra uses for electricity are planned for the future (vehicles, hydrogen generation etc) but there do not appear to be any large new generation projects planned to meet those needs. There seems to be an expectation that closing the Tiwai smelter will free up a lot of power for other uses, but it is now looking as though the smelter will continue beyond the planned closing date.*

Conversely some respondents did not think the electricity market was meeting consumer needs now or would do so in the future. One concern was what is seen to be a gentailer oligopoly.

*Misaligned motives and scale allow the Gentailers to dominate and only fight amongst themselves. Encouraging competition and smaller players who can provide a more efficient and targeted service will increase demand for change.*

*With generators holding dominating power in supply, there is almost no room for small, innovated players to survive. Big gentailers don't need to tailor their products to meet customers' needs as they always have competitive advantages on energy costs. You will only see innovation and tailoring to customers' need if all the players are on the same levelled play field as then the innovation and better service can then become the main battlefield.*

The current high prices were seen as evidence the electricity industry was not meeting consumer needs.

*Pricing - consumers are faced with different pricing related to the location of the country they live in. Smaller distributors are now relying on other income to offset fixed costs. More consideration is required to review how transmissions costs can be shared more evenly.*

*... Residential retail prices have to increase ~40% to ensure the cost of purchasing electricity is recovered. Both the generation and retail markets are NOT workably competitive which is NOT good for consumers.*

Vulnerable consumers, in particular were seen to be at risk of current high prices.

*...Our intersection with the sector comes primarily when consumers face financial hardship, are unable to pay their power bills, or are drowning in problem debt and other social and spiritual issues that impact their engagement with companies. I ticked 'Agree' here cautiously as I/we believe there is always room for improvement in engaging with and supporting vulnerable consumers.*

*Many whānau facing hardship currently go without essential energy services and the EA doesn't even collect data on automatic disconnection of people with Prepay.*

Also mentioned were the difficulties independent and innovative retailers had entering the market which impacted price and consumer choice.

*Gentailers are forcing out independent retailers and creating difficulties for independent generators to come into the market. Long-term this will result in higher electricity prices for all consumers.*

*Wholesale prices are higher than residential energy prices. This is driving out small, innovative retailers. This undermines the industry's ability to meet consumer needs and reduces competitive pressure for changes in the future.*

Others felt that the electricity sector had demonstrated innovation and quality in infrastructure but that fewer barriers and a faster pace of change was needed.

*The market is inefficient, and the inefficiency creates barriers for investments that can truly help customers over shareholders.*

*The regulatory regime in place has not delivered efficiency with ever escalating cost to consumers. The market structure has failed to provide the incentive for Generators to build the necessary future infrastructure, only bleed maximum profit from legacy assets.*

*Overall, the industry meets customers needs better than most other infrastructure in NZ (refer the Infra Comsn Strategy). However, regulation is not supporting enabling investment. The search for economic purity means we are constantly too late.*

# 5. Trust and confidence

## 5.1 Results

### Role of the Authority

The monitoring of industry participant behaviour and market outcomes was generally agreed upon. In terms of holding participants to account for their actions and having confidence in the role of the Authority as kaitiaki of the electricity sector the thoughts were mixed.

In terms of monitoring, 54% (down 2%) agreed (strongly agree plus agree) the Authority actively monitors market outcomes (17% disagreed, down 1%) and 56% (up 4%) agreed the Authority actively monitors participant behaviour (16% disagreed, down 4%). 45% (up 4%) agreed the Authority holds participants to account for their actions (29% disagreed, down 10%).

- 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 participant behaviour (66%), compared to those who have been active for 20 years or less (35%).

Respondents were less confident in the role the Authority plays as kaitiaki of the electricity sector; 23% (down 14%) agreed they had confidence and 40% (up 5%) disagreed.

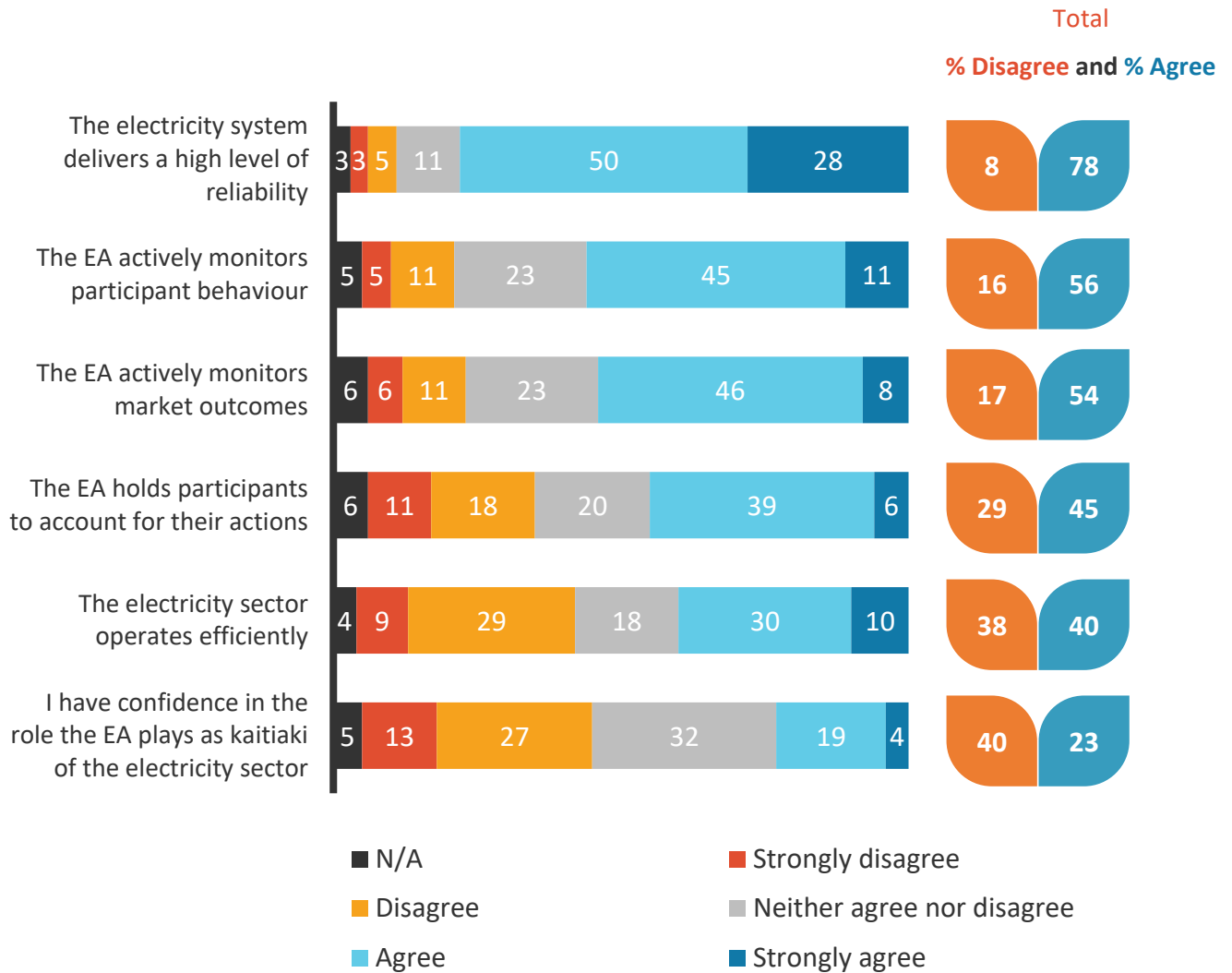
### Efficiency and reliability in the electricity sector

Respondents mostly viewed the electricity system as reliable, although were divided on whether the electricity sector was operating efficiently.

78% (unchanged) of respondents agreed (strongly agree plus agree) the electricity system delivers a high level of reliability. 40% (down 8%) agreed that the electricity sector operates efficiently (38%, up 3% disagreed).

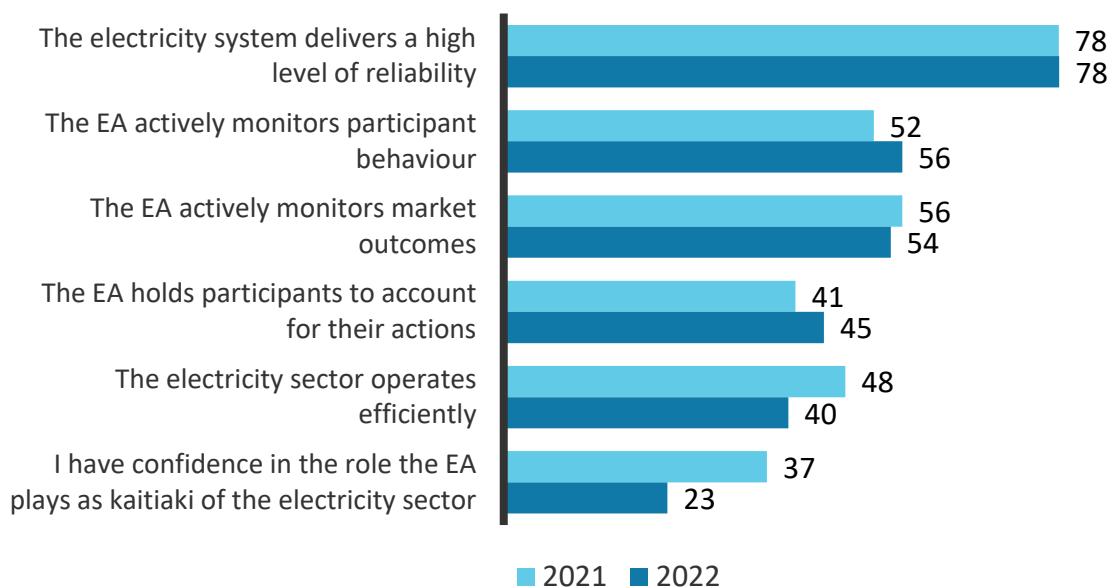


**Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A. (%)**



Base: All Respondents (n=114).

**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. Some felt that there was insufficient scrutiny put on generator / retailer behaviour or monitoring of outcomes for consumers.

*Active monitoring is one thing... Also, the Authority has a strong focus on the efficiency of the market. But a market can be very efficient at producing poor outcomes for consumers. Efficiency needs to be tied to fair prices (or pricing expected in a workably competitive market) and security of supply.*

*There have been ongoing negative market outcomes that have fundamentally not been addressed by the EA.*

*The EA may well monitor the market and participants however the behaviour of certain incumbent Gentailers does not provide confidence in the EA being able to influence the correct behaviour of these Gentailers. Evidence includes spilling precious water resources, exorbitant SPOT market and ASX pricing, refusal to bring on supply when required, selling to consumers below published ASX futures prices and SPOT market prices.*

Some respondents were also looking to the Authority to hold more participants to account.

*In my opinion we have one of the lightest touch regulators of all deregulated electricity markets globally. I believe to an extent the Electricity Regulator is captured by large gentailers, and it fails to provide independent oversight and regulation for the benefit of consumers.*

*The EA may monitor market outcomes but haven't seen any evidence of holding anyone to account. The Wholesale Electricity Market is completely broken and manipulated by the Gentailers.*

*If reliability means security of supply, then I agree. If reliability means market efficiency, then I disagree. I believe the EA is hamstrung by its statutory powers. It needs to regulate, monitor and hold to account more... The process of consultation, review, cross review, review of the reviews is the reason it takes over 6 years to make a Code change. There is no agility, there is no urgency, there is no leadership.*

*The EA is excellent at holding Transpower to account and fails almost entirely to hold any other participants to account. The Authority's findings on 9 August (laying all blame at Transpower's door) are farcical and irresponsible and that increases the risk of similar events in future.*

There was concern expressed regarding the efficiency of the market and what measures were being focused on.

*Also, the Authority has a strong focus on the efficiency of the market. But a market can be very efficient at producing poor outcomes for consumers. Efficiency needs to be tied to fair prices (or pricing expected in a workably competitive market) and security of supply.*

*The EA do actively monitor the market but we question whether they are focused on the right measures. The analysis and conclusions drawn from the recent Wholesale Market Review demonstrated a major miss in our view. There is clearly heightened risk on gas deliverability and increased thermal costs yet the EA failed to adequately look into this and also failed to understand the drivers of hydro generators and the imperative for prudent storage management.*

*The EA continues to be unwilling to accept or focus on wholesale market issues focussing on Tiwai within its wholesale review. It does not price benchmark the market against SRMC and LRMC for each generation type. It doesn't accept hydro does not compete against thermals. It does not accept market power problems with Meridian. It does not accept that the market is not workably competitive... It doesn't focus on the core of the problems at all which really is the spot market...*

Respondents had mixed responses towards the Electricity Authority playing the role as kaitiaki in the electricity sector. Some lacked general knowledge about kaitiaki which may explain the generally low agreement compared with the other statements.

*"Kaitiaki is a New Zealand Māori term used for the concept of guardianship, for the sky, the sea, and the land..." Not sure I agree that the term is the right one for the EAs role which is a statutory body charged with specific objectives, but do appreciate that the concept embodies an agency care that is wider than just its objectives and is culturally important...*

*I am an engineer not a linguist. I don't know exactly what kaitiaki means. But I do know that the Electricity Authority tells Transpower how to calculate your dry year reserve. For instance, it believes that dry year shortages last six months when it is obvious that they are usually over in four months or less...*

*I think the EA overplays its role as kaitiaki of the electricity sector. It has an important role in developing and enforcing industry arrangements to promote competition, reliability and operational efficiency but the actions and advice of the Commerce Commission, Climate Change Commission, MBIE and MFE are far more important for some stakeholders.*

# 6. Thriving competition

## 6.1 Results

Like last year, respondents generally did not think the electricity market was competitive for new entrants.

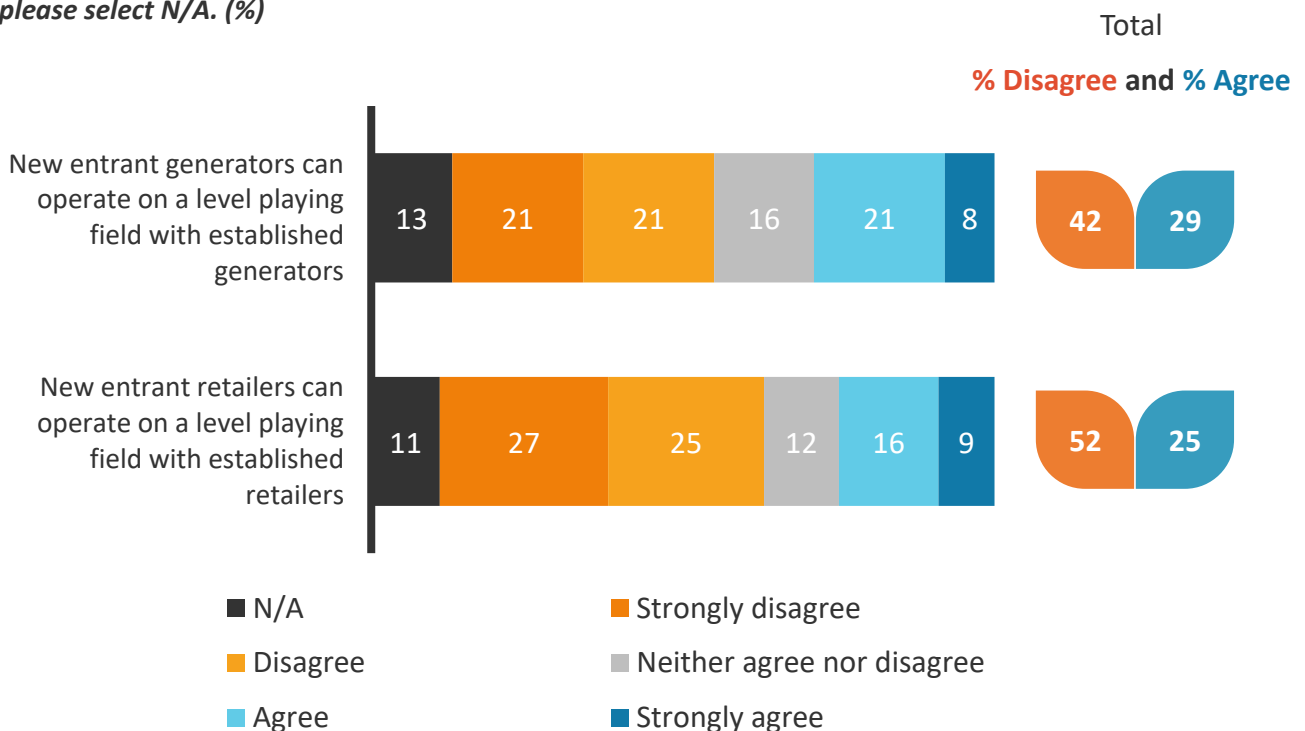
25% (up 6%) agreed (strongly agree plus agree) that the **new entrant retailers** can operate on a level playing field with the established retailers, a greater proportion of 52% (up 9%) disagreed.

- Respondents from organisations that represent consultancy were more likely to agree that new entrant retailers can operate on a level playing field with established retailers (50%).
- Representatives of organisations that have been active for more than 20 years in the electricity industry were more likely to agree that new entrant retailers can operate on a level playing field with established retailers (31%) than those who have been active 20 years or less (11%).

29% (up 11%) agreed that **new entrant generators** can operate on a level playing field with established generators. However, 42% (down 1%) disagreed.

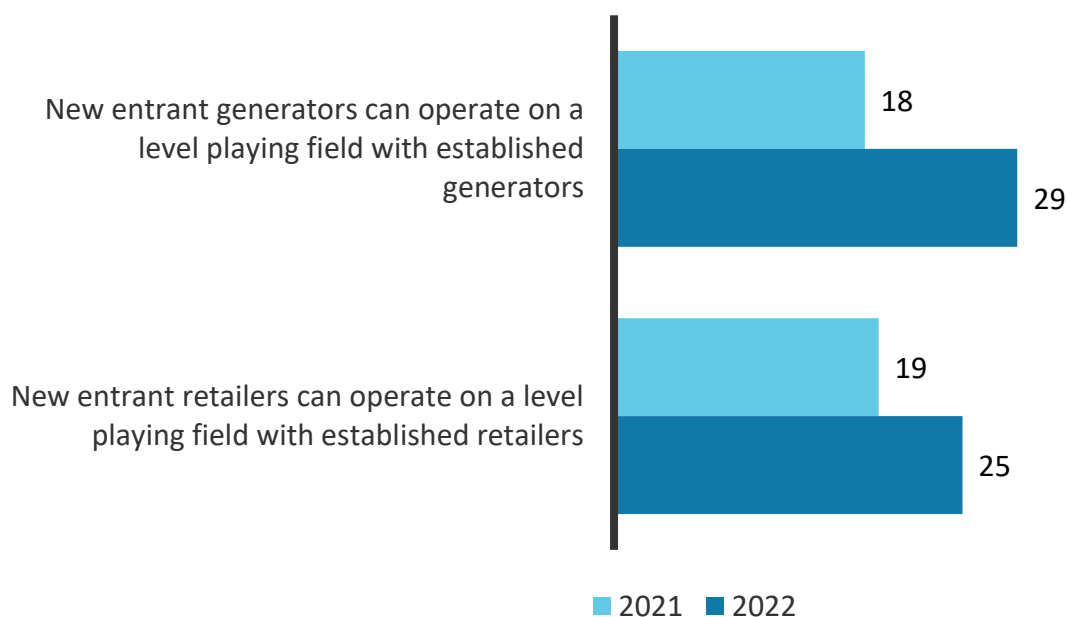
- Respondents from organisations that represent generator and/or retailers were more likely to agree that new entrant generators can operate on a level playing field with established generators (40%).
- Representatives of organisations that have been active for more than 20 years in the electricity industry 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 (14%).

**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=114).

**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

Many respondents believed that new entrants could not compete on a level playing field. It was difficult to compete financially, as current conditions for new entrant retailers were difficult.

These included difficulties that were technical and structural, as well as not having the expertise and experience to be competitive when starting out. It was a steep learning curve for new entrants.

*New entrants face considerable technical and structural hurdles*

*The administrative burden for new retailers seems high and would query access to electricity for those retailers without generation.*

*Incumbent generators with large hydro storage have a significant competitive advantage. The emissions trading price has increasingly made it more difficult for thermal generators to compete and hydro generators have received significant wind fall gains as a result.*

*... Like many sectors we continue to see new entrant retailers underestimate the capital required to grow a business. This is evidenced by the recent string of failures in the UK market and the exit of many NZ retailers over time (i.e., Energyclub, MegaTel etc).*

*New entrant retailers have access to contract markets to manage risk. Most do it poorly. New entrant generators appear to be struggling to secure long term offtake to underwrite investment.*

Several respondents commented that gentailers had too much power. With the largest companies having the bulk of the sector, they controlled and managed the sector and its operations, making it difficult for new entrants to establish sustainable and competitive businesses.

*Gentailers own the market. It's that simple.*

*Small new retailers or generators will never be able to enter the large player dominated market easily.*

*Recent history suggests that new, "smart" retailers have an uphill battle competing against the large gentailers.*

There is a view that the current vertical integration system where larger gentailers have internal hedges means business cases based on spot prices were uncertain. Also, the sell price of future hedges provided by gentailers was below the ASX giving gentailers an unfair advantage of being able to offer discounted prices.

*Gentailers with their vertical integration make up the majority of the market. given the issues in the UK with all the retailers going bust due to wholesale price rises they couldn't manage - seems that independent retailers that are successful in NZ must have great risk management i.e. understand how to get hedges etc.*

*The generation business of gentailers sells electricity to their retail arm at prices well below current market (set well in advance of the time the electricity is being sold) for whatever quantity the retailer sells at a fixed price. This feature of the market settings is a key reason why there is NOT a level playing field for new entrant retailers*

*The generation business of a gentailer has an automatic/internal customer for all/any of its generation output.*

A few expressed concerns there were too few barriers to entry for new entrants.

*The barriers to entry are low for new generators and retailers.*

*There are not enough barriers to enter in the retailer space, anyone with a spare buck can start an energy retailing business leaving customers exposed to fluctuating spot prices etc.*

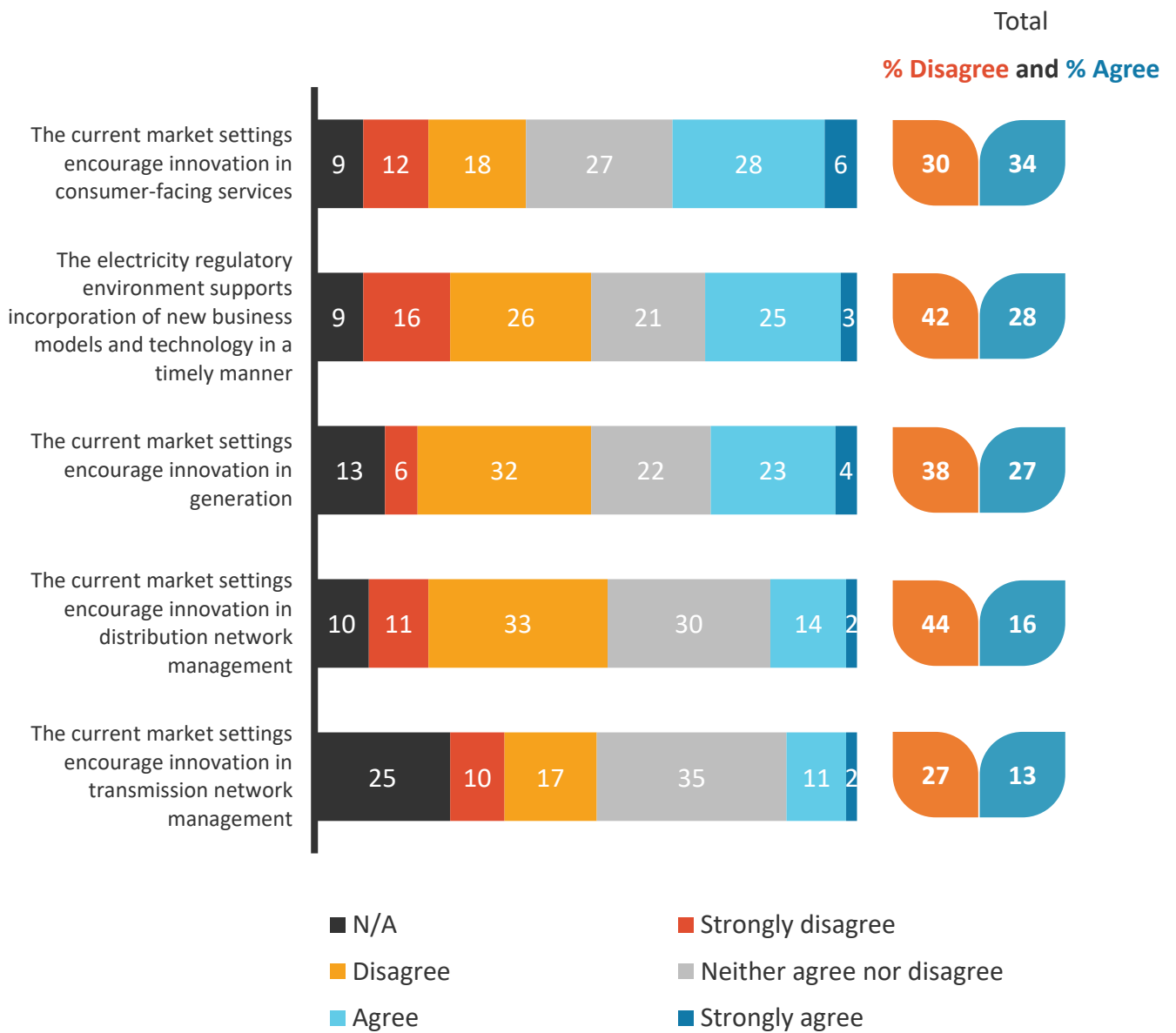
# 7. Innovation flourishing

## 7.1 Results

Respondents were more likely to disagree than agree on all aspects of innovation tested with the exception of encouraging innovation in consumer-facing services.

- 34% (down 1%) of respondents agreed (strongly agree plus agree) the current market settings encouraged innovation in **customer-facing services and generation** and 30% (unchanged) disagreed.
- 28% (up 10%) agreed that the electricity regulatory environment supports incorporation of **new business models and technology** in a timely manner, while 42% (down 3%) disagreed.
- 27% (down 2%) agreed that current market settings encouraged innovation in **generation** and 38% (up 4%) disagreed.
- 16% (up 4%) agreed that current market settings encouraged innovation in **distribution network management**, while 44% (down 8%) disagreed.
- 13% (down 4%) agreed that current market settings encouraged innovation in **transmission network management**, while 27% (up 4%) disagreed.

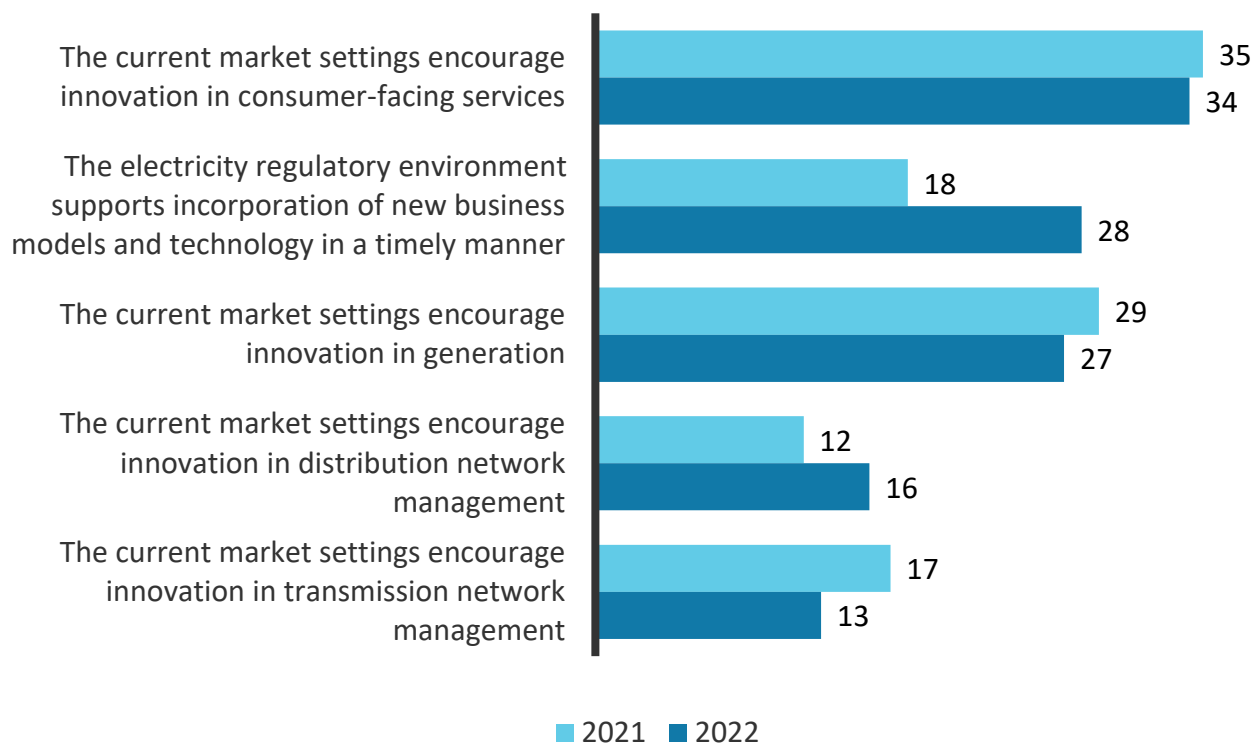
**Q: Please rate the following statements. If you are unsure, or would prefer to not answer a question, please select N/A. (%)**



Base: All Respondents (n=114).



**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

Several respondents mentioned that the current market settings and structure were barriers to innovation. Also some commented that generally there was a perceived lack of innovation across all settings, even though the intention was for changes to be made.

*Could do better supporting new business models and technology in a timely manner but the real issue is the level of investment required for decarbonisation.*

*Current market settings work in a fashion but some times can be slow and cumbersome. Innovation by network companies is mixed with some very good initiatives shown by some networks - especially the larger networks. Smaller network tend to struggle due to a lack of scale and resource. Regulatory settings for monopoly networks enable a least effort approach.*

*The industry operates slowly and 'in hindsight'. There is no innovation compared to say the telecommunications sector and definitely not compared to the financial sector. The sector is hamstrung by a fear of the physics, security of supply is the easiest excuse to block innovation.*

For some respondents, the regulator and regulatory environment were impeding innovation.

*The EA must be willing to provide opportunities for sector participants to try new technologies and methods of operating. Appears to be very slow and resistant to any significant form of innovation.*

*Little about EA's market design leadership is timely or progressive.*

*Current regulatory settings, and the whole regulatory environment (including unclear direction, accountability, and fragmentation) are impeding innovation across all areas.*

*The regulatory environment has not demonstrated any ability to 'get ahead of the curve' for any innovation. At this stage it may not be a barrier to innovation and there remains the risk that the regulatory environment stifles innovation. Eg, the EA's Open Network Access workstream has planned and postponed full day workshops for the last 18+ months.*

Respondents believed change was needed with observations that progress was slow with delays in changes to the Code cited.

*Our metering business relies heavily on the Electricity Industry Participation Code for compliance. The process to change the code to meet technology or customer demands takes around 2 years, which is far to long to be effective.*

*The Code is out-dated and participants' proposals for technical changes to it are sitting unread in a drawer.*

*I think there have been delays of five years or more for updates to the Code in regards to distributed generation. I fear there will be similar delays that will force distributors to address reactive power apportionment of proposed solar farms through contractual methods.*

*I have been promoting a smart thermostat that would make a huge difference to control of peak demand, frequency, feeder loadings and managing price spikes. As I pointed out to the Electricity Authority, it cannot be successful until there is a change in the regulation that stops lines companies from recovering the operation, installation and maintenance costs of peak demand equipment. The EA cannot even understand why the regulation needs to change.*

*The fact it takes ~2 years to change the Code is likely to have some impact on innovation at some stage.*

# 8. Competition

## 8.1 Results – Competition in the Electricity Sector

Regarding competition between retailers a similar proportion agreed (strongly agree plus agree) (40%, up 5%) that prices only rise in line with costs to the electricity company, while 39% (down 6%) disagreed and 15% (down 1%) were neutral.

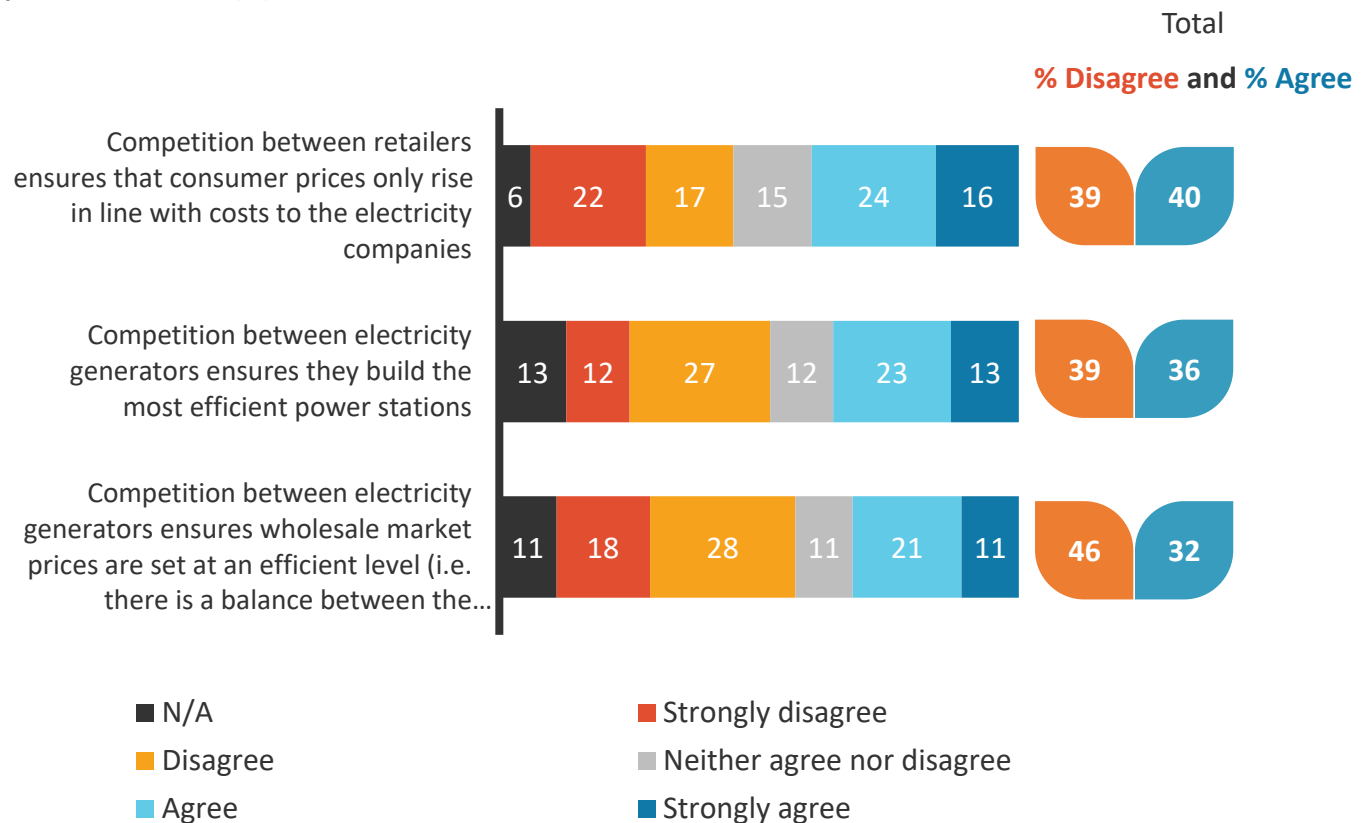
- Respondents from gentailer organisations were more likely to agree that competition between retailers ensures that consumer prices only rise in line with costs to the electricity companies (55%).

36% (down 2%) of respondents agreed (strongly agree plus agree) the competition between electricity generators ensures they build the most efficient power stations, while 39% (up 8%) disagreed (strongly disagree plus disagree) and 12% (down 11%) were neutral.

- Representatives of organisations that have been active for more than 20 years in the electricity industry were more likely to agree that competition between electricity generators ensures they build the most efficient power stations (44%), compared to those who have been active for 20 years or less (19%).

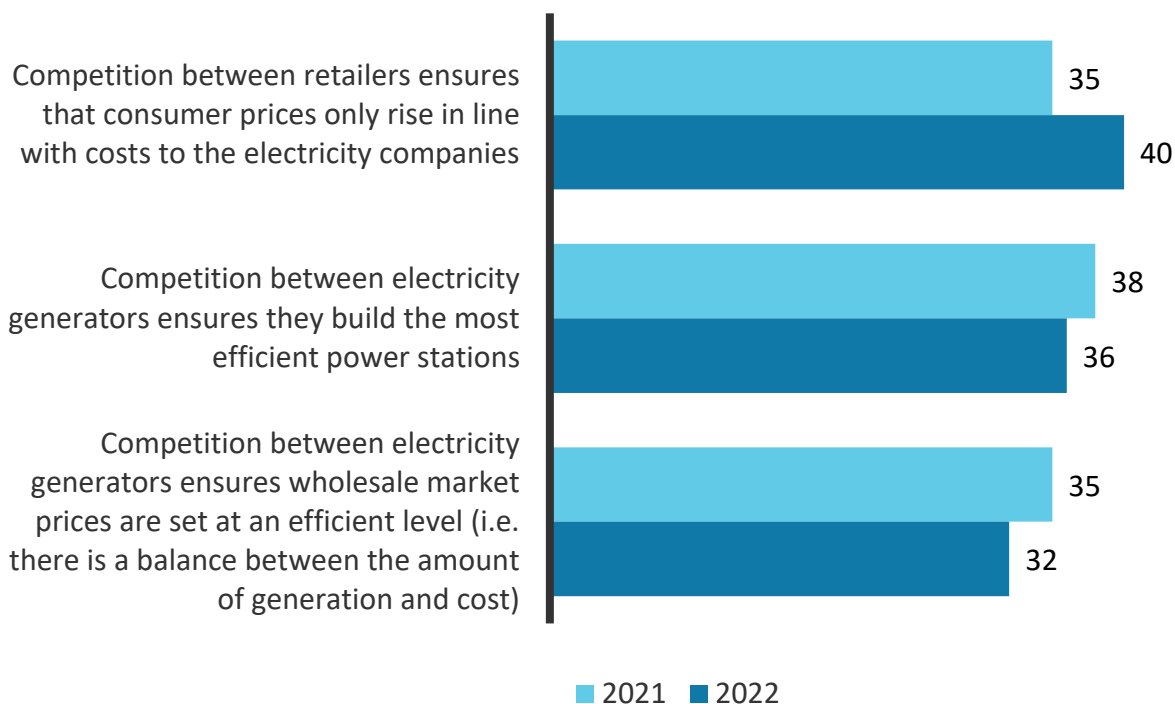
32% (down 3%) agreed that competition between electricity generators ensures wholesale market prices are set at an efficient level. However just under half (46%, down 5%) disagreed and 11% (up 2%) were neutral.

**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=114).

**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

Levels of agreement and disagreement levels were varied for prices in the electricity market reflecting the outcomes expected in a workably competitive market.

41% (unchanged) agreed (strongly agree plus agree) that the Retail market prices reflect the expected outcomes, while 30% (down 9%) disagreed (strongly disagree plus disagree).

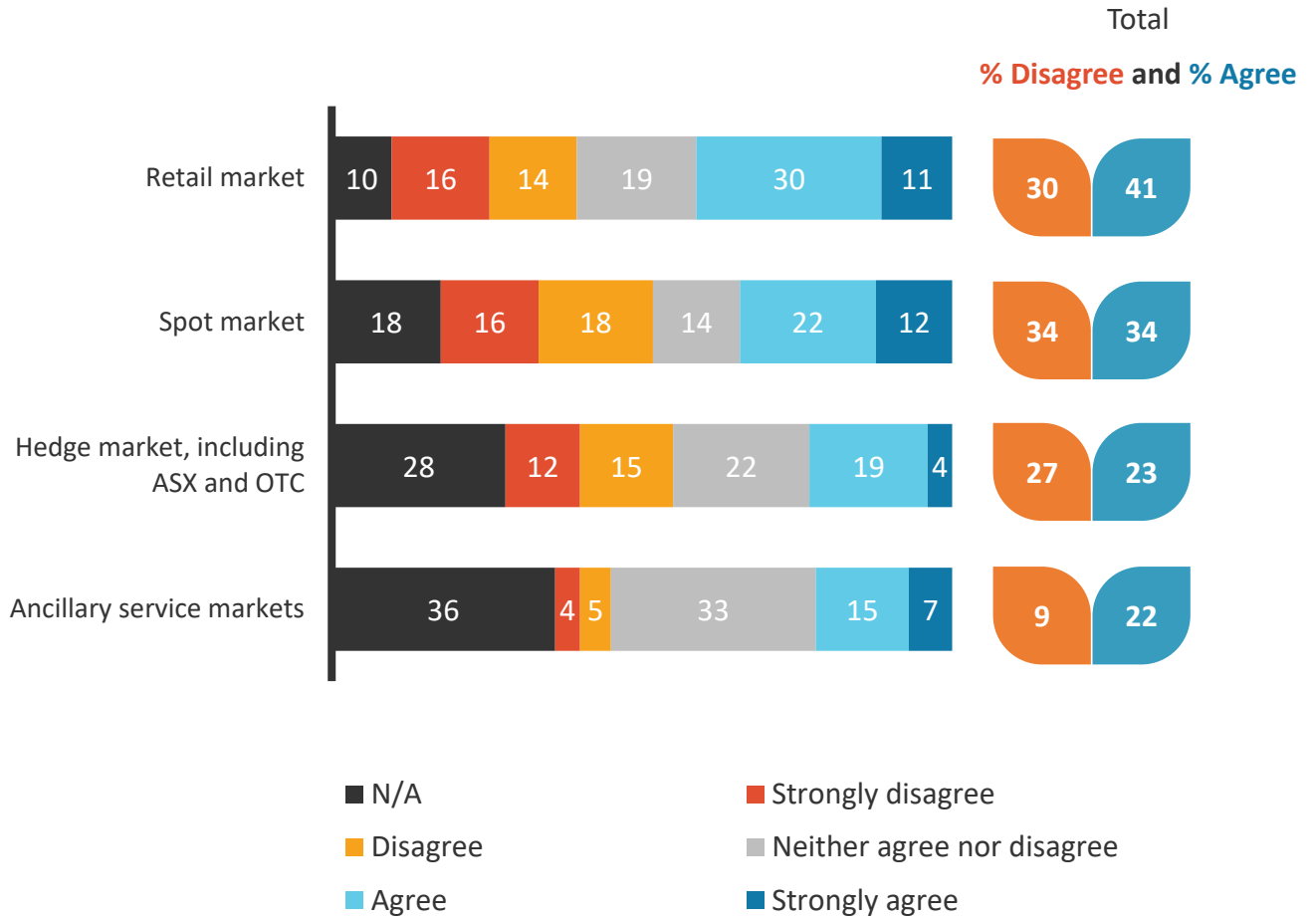
34% (up 1%) agreed the Spot market prices reflect the expected outcomes, while the same proportion (34%, down 5%) disagreed.

23% (up 2%) agreed that hedge market, including ASX and OTC prices, reflected outcomes expected, while 27% (down 7%) disagreed.

- Respondents from gentailer organisations were more like to agree that hedge markets, including ASX and OTC prices, reflected outcomes expected in a workably competitive market (38%).

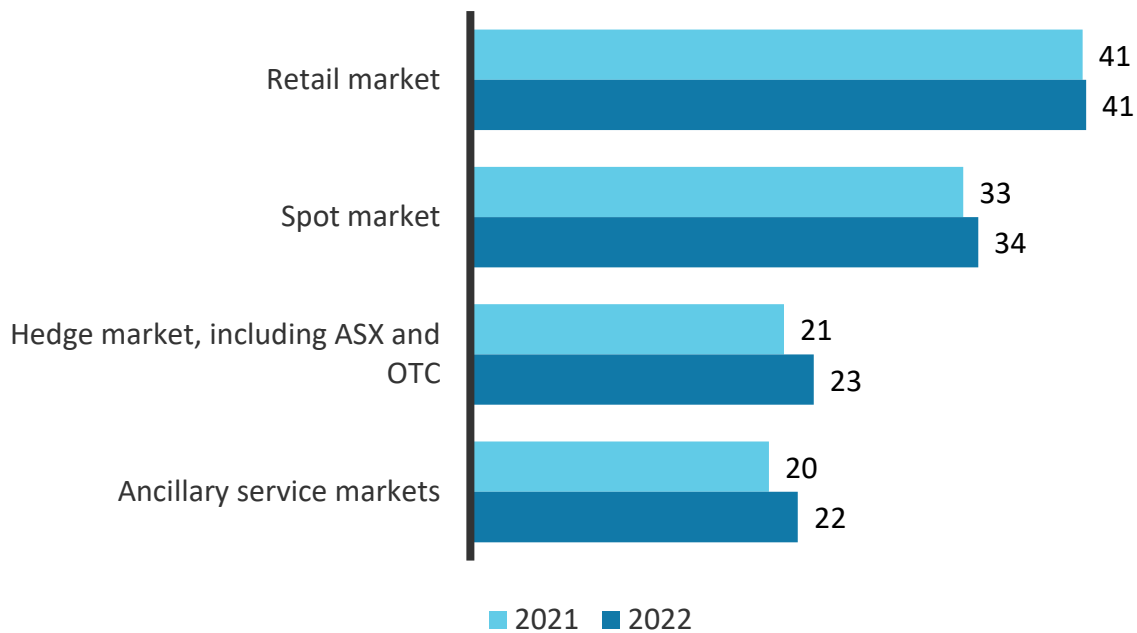
22% (up 2%) agreed that ancillary service markets reflected outcomes expected, while 9% (down 2%) disagreed.

**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=114).

**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

Respondents identified several factors which supported their views that competition does not ensure efficient operations and pricing structures and that prices in the electricity market do not reflect the outcomes expected.

The view that incumbent retailers were advantaged by an existing customer base and the ability to keep prices artificially low continues to be held.

*It appears that the independent retailers are being forced out of the market because of high hedge prices. Retailers are now having to match their sales with their generation, which is limiting retail competition.*

*Price discrimination is rife and retailers are not effectively constrained when setting prices especially for loyal customers. A complaint I made about abysmal disclosure of a change in pricing from a retailer went nowhere, they waived a \$50 fee for nothing at their discretion only after I chased them.*

A number of respondents were concerned about the lack of competition among generators.

*While there is generation competition this is eroded by regional concentration of generation capacity within few participants. Withholding generation capacity to avoid constraints and avoid price separation distorts spot price discovery compared to a workably competitive market.*

*There is no competition between the generators, the average wholesale prices are higher than ever before!!*

*Since the 2018 gas shortage the elasticity of the spot electricity market was revealed to the generators. Prices never returned to pre 2018 even under similar gas and hydro situations. The NZ generation market is defined by a few large players who all have intimate knowledge of their competitors cost bases under any given demand condition.*

*The generators control the price, "when the supply is constrained, the price is a trade-off between greed and guilt"... the key to making money in the electricity business is to keep the system on the edge of a shortage. Which they do.*

Some respondents consider gentailers have an additional advantage in terms of control and power that hinders efficiency in the market.

*It appears that the big gentailers have too much power (no pun intended) to allow for a fully efficient market.*

*Record profits at the gentailers, combined with long term futures market and spot prices which are greater than the cost to deliver electricity are a good indicator that there is something wrong with competition in the sector.*

Also mentioned were concerns with the wholesale market settings and structure.

*The model for wholesale market price is broken.*

*The retail market can't really be competitive if the wholesale market isn't. And retail competition from independents only offers gentailers the opportunity to be longer generation. So, the spot market rises, gentailers keep residential prices within some levels of reasonableness to protect political fallout. Gentailers won't generally sell hedges to independent retailers.*

*The only "wholesale" market in New Zealand is the ASX futures market. The SPOT market is not a "wholesale" market. The ASX futures market cannot be an efficient market as the prices quoted there are above the retail price, that is above the price incumbent Gentailers sell to their consumers at. So either retailers are losing money on their retail base or the cost of generation to those retailers is not actually the "wholesale" price as published on the ASX futures market. We believe the latter to be true and non Gentailers are being forced out of the market or forced to operate with a higher supply cost than incumbent Gentailers through inflated.*

*The Authority's wholesale market review provides clear, conservative, evidence that wholesale prices are far above workably competitive levels. The problems are far bigger than the problems the Commerce Commission identified in the supermarkets review*

A few respondents mentioned that spot pricing (hedge markets and forwards markets) was not working in customers' best interests at present.

*Spot prices do seem unusually high from time to time. Having said that, thermal fuel prices have risen over the last few years. The ASX and OTC markets settle against the spot market - so reflect spot uncertainty and expectations. It's good to see some of the longer-term OTC trades have been at lower prices, signalling that spot price expectations further out are lower. With the influx of many solar developers (a number*

*from overseas) there seems to be very healthy competition for new build. The question will be the price/market signals required to incentivise renewables balancing.*

*Current spot prices however are not a huge driver for long term investment (10- 15 years plus), and neither is ASX futures for that matter due (too short term). Main issues for affecting new generation investment will be uncertainty as to future NZ demand (Tiwai), TPM costs and Government policies re 100% renewable generation by 2030/Project Onslow.*

*Looking at electricity prices its clear the regime in place is not delivering savings costs when looking historically or internationally.*



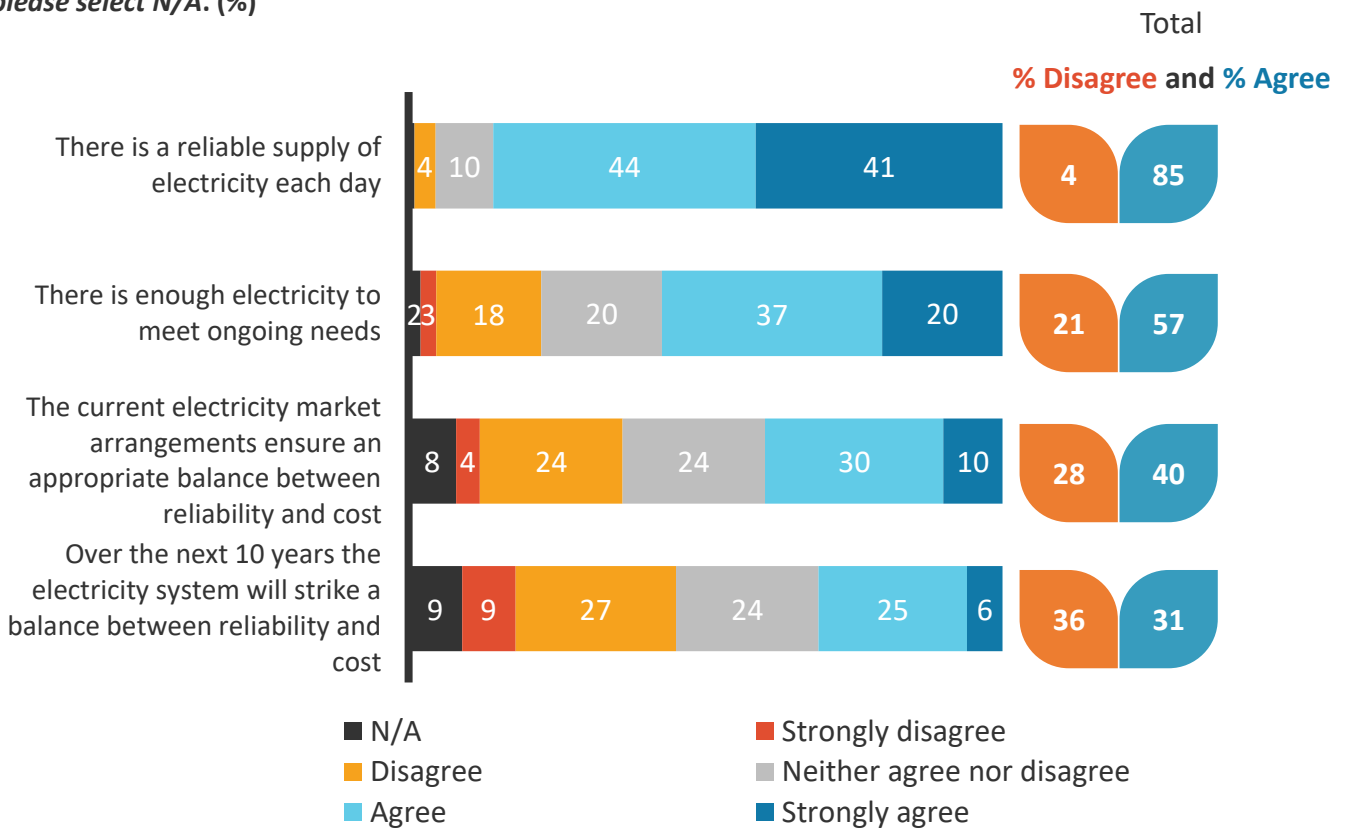
# 9. Reliability

## 9.2 Results

Respondents rated the overall reliability of electricity supply positively, with 85% (unchanged) agreeing (strongly agree and agree) there was a reliable supply of electricity each day.

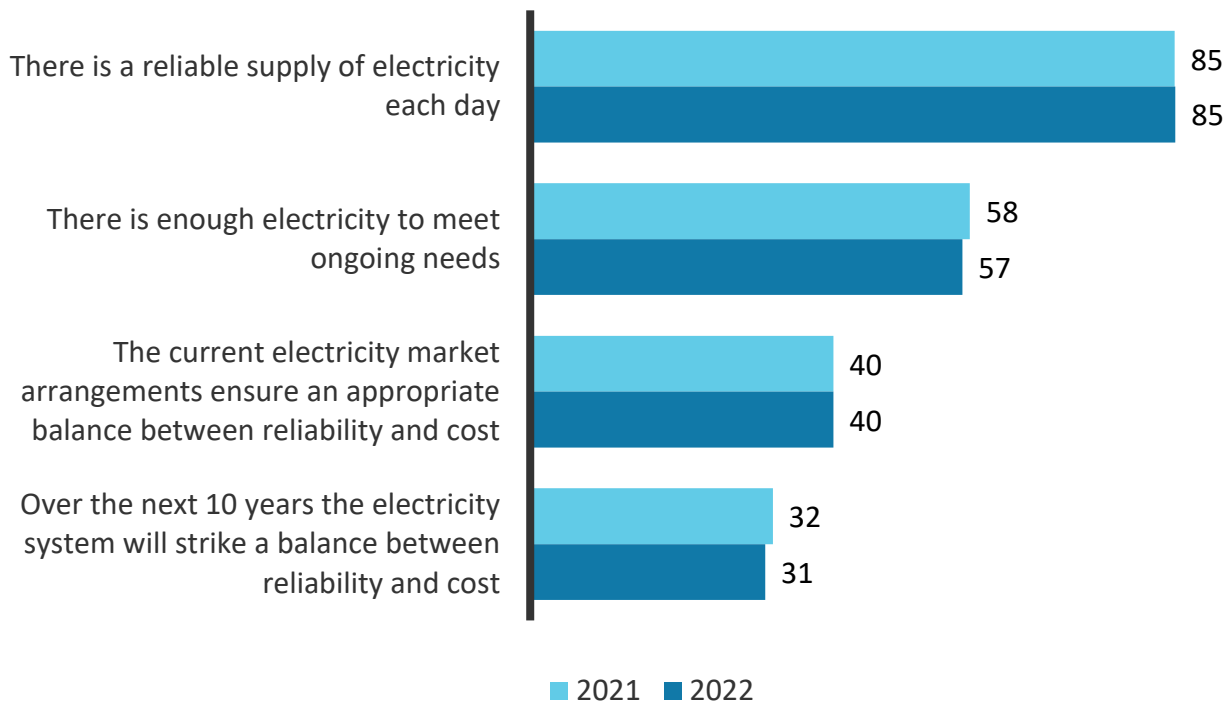
- However, this reduced to 57% (down 1%) agreeing (strongly agree plus agree) there was enough electricity to meet ongoing needs; 21% (unchanged) disagreed (strongly disagree plus disagree).
- 40% (unchanged) agreed the current electricity market arrangements ensure an appropriate balance between reliability and cost. 28% (down 4%) disagreed.
- 31% (down 1%) agreed that over the next 10 years the electricity system will strike a balance between reliability and cost. However, a slightly higher proportion disagreed (36%, up 7%).

**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=114).

**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

Respondents were concerned about the risks, challenges and unknowns that could impact on future supply making it difficult to have confidence there was enough electricity to meet ongoing needs. Also, they were concerned whether the current or future electricity system will strike a balance between reliability and cost.

Future challenges to reliability mentioned by respondents were reduced hydro flow, combined with increased demand, along with decarbonisation and climate change goals.

*Clearly the need for deep storage to firm hydro as thermal assets retire is critical but the investment incentives are strong for all participants.*

*Yes, but...we are reliant on thermal fuels to meet demand, especially coal and gas. Coal is being imported, at record levels, how sustainable is this? One, from a geo-political view, could coal supplies be disrupted? And two, from a climate point of view this is not sustainable. Clearly there is not enough supply to meet demand as evidence by last years forced outages due to insufficient supply to meet demand and by the SPOT market and ASX futures market prices which sees prices well above the current retail pricing to consumers.*

*Is there going to be enough generation in NZ if we remove the coal generation and increase the electrification moving forward- unsure where this info is?*

The cyclical marketplace where price and investment are sensitive to the business cycle continued to be of concern and raised questions regarding electricity reliability and the balance between reliability and cost now and over the next ten years. Future government interventions and policies were key unknowns.

*Market arrangements will likely need to be revisited to ensure an orderly transition in the context of more volatility in price and supply, and rising carbon costs.*

*Transpower recent reports show there is insufficient generation to meet future demand. If new generation is not built then what? Plus, there have been several times recently where prices have soared due to lack of offered generation.*

*I think the industry is not as prepared as I would like for a sudden increase in demand which might occur.*

*My disagreement is based only on regulatory uncertainty and the very high risk that government does something colossally stupid that breaks everything. They keep flirting with 100% renewables, which would break everything. Gas bans break things.*

*I don't believe that regulation, industry agreement, etc will keep pace with the rate of change. It won't be about intent it will be about ability. The EA has a shocking record of execution of change.*

Also mentioned by respondents were questions around the sufficiency of electricity supply to meet future needs (although sufficient in the short-term), while others continued to mention the unacceptably high cost of electricity, worrying that increased costs will be difficult for consumers.

*Is there going to be enough generation in NZ if we remove the coal generation and increase the electrification moving forward- unsure where this info is? Due to increasing demand of electricity and the affordability for consumers in smaller EDB's, maintaining reliability and cost will be tough without other forms of revenue to offset expenditure.*

*Clearly there is not enough supply to meet demand as evidenced by last years forced outages due to insufficient supply to meet demand and by the SPOT market and ASX futures market prices which sees prices well above the current retail pricing to consumers. With rising demand brought on by electrification of certain industries, population growth, electrification of the transport industry (EVs, busses, trains)...there is clearly insufficient supply available today to meet future needs.*

*Electricity prices are likely to escalate over the next 10 years with increased demand from EVs and the need to decommission base load thermal plants. Generation costs will increase with high performance windfarm sites now utilized and the generation cost from solar farms being higher than current wholesale prices.*

*Due to increasing demand of electricity and the affordability for consumers in smaller EDB's, maintaining reliability and cost will be tough without other forms of revenue to offset expenditure*

In addition, some considered that current market settings were not adequate for future power needs and generation.

*The market is set up to allow only those with sufficient market power the ability to construct a strong business case for new generation; as these are the companies who are able to manipulate the price to ensure their profits. The market keeps these companies incentivised to keep the country on the precipice of shortage and try to get the last MWhs of power supplied coming from thermal generation in order to maximize return. Situations such as August's power cuts, and the UTS where water was being dumped amidst high prices indicate that what we are doing is not promoting reliability in the sector.*

*Market evolution will be required to strike a balance between reliability and cost as thermal exits.*

*Our concern is that the next 10 years will result in greater volatility and uncertainty as we enter into a market led transition to a new energy system. Reliability may suffer but prices will likely increase despite this. New entrants will not be regulated and will seek to monetise and extract more profit from the industry. We are very concerned that the new energy future will be the least affordable for consumers.*

# 10. Efficiency

## 10.1 Results

### The New Zealand Electricity Market

55% (up 4%) of Respondents agreed (strongly agree plus agree) that the New Zealand electricity market ensures electricity is **generated** efficiently; 28% (down 2%) disagreed (strongly disagree plus disagree).

- Representatives from organisations that have been active for more than 20 years in the electricity industry were more likely to agree (62%) compared to those who have been active for 20 years or less (38%).

A similar proportion agreed 53% (up 4%) that the New Zealand electricity market ensures electricity is **transmitted** efficiently; 14% (down 6%) disagreed.

- Representatives from consultancy organisations were more likely to agree (90%).

A smaller proportion agreed (45%, up 5%) that the New Zealand electricity market ensures electricity is **distributed** efficiently; 21% (down 13%) disagreed.

- Representatives from distribution and/or transmission organisations were more likely to agree (67%).

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

There was uncertainty whether NZ's hedge and wholesale markets efficiently coordinates electricity production and consumption or facilitates timely investment in the electricity system, with between 30% to 55% of Respondents giving neutral or N/A responses. Similar to the previous year disagree scores were generally higher than agree, suggesting the wholesale and hedge markets may not support efficiency or timely investment.

#### Wholesale market

51% (up 6%) of Respondents agreed (strongly agree plus agree) that New Zealand's **wholesale market efficiently coordinates electricity production and consumption**; 19% (down 11%) disagreed.

Like last year, 25% (unchanged) agreed that New Zealand's **wholesale market efficiently facilitates timely investment in the electricity system**, 37% (up 4%) disagreed.

#### Hedge market

Respondents rated New Zealand's hedge market lower than the wholesale markets like last year for coordinating electricity production and consumption and for efficiently facilitating timely investment in the electricity system.

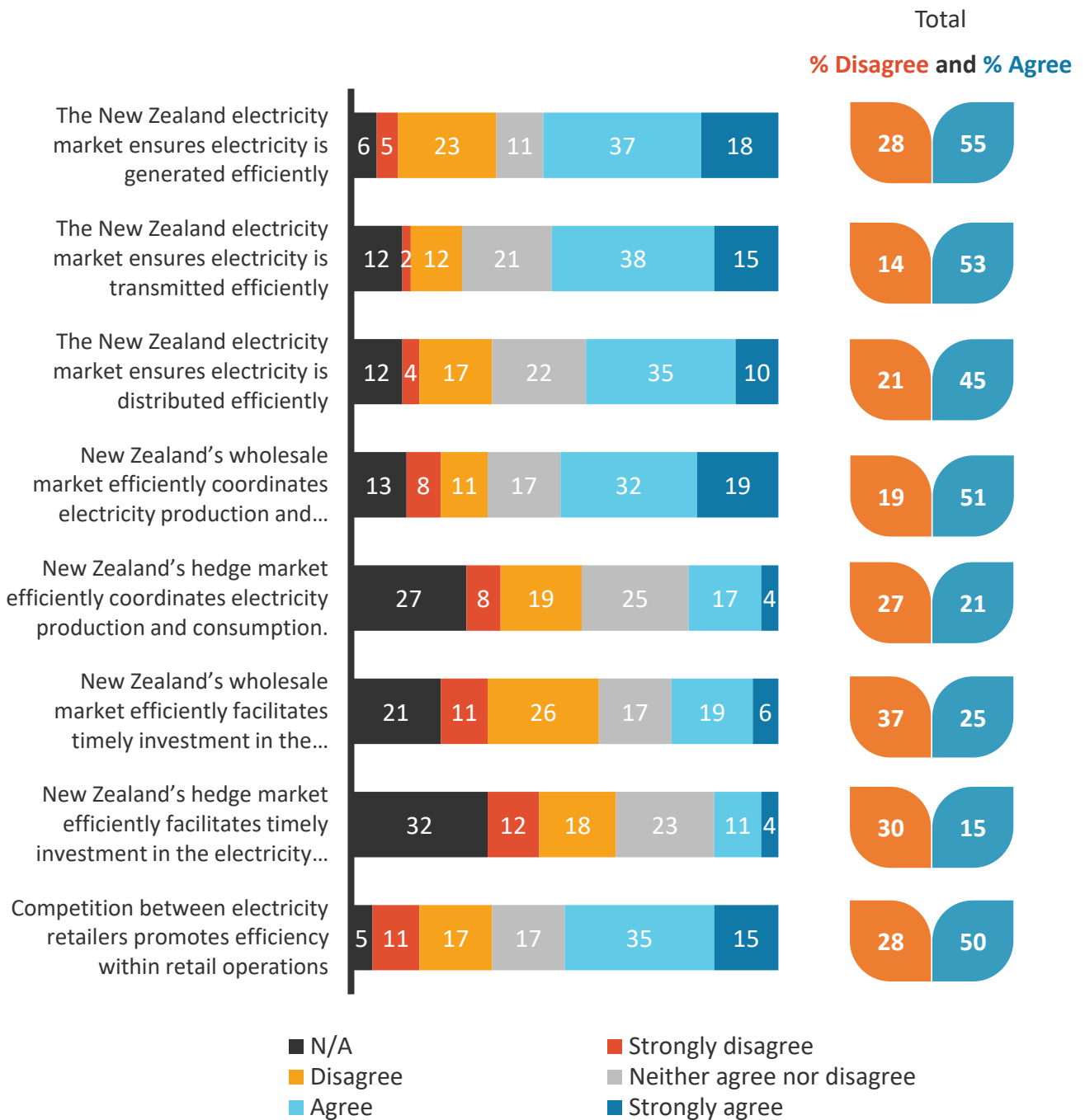
- 21% (up 1%) agreed that the **hedge market efficiently coordinates electricity production and consumption**, 27% (down 10%) disagreed.
- 15% (down 1%) agreed that the **hedge market efficiently facilitates timely investment in the electricity system**, 30% (down 5%) disagreed.

## Competition promoting efficiency

50% (up 1%) agreed (strongly agree plus agree) that competition between electricity retailers promotes efficiency within retail operations, while 28% (down 8%) disagreed (strongly disagree plus disagree).

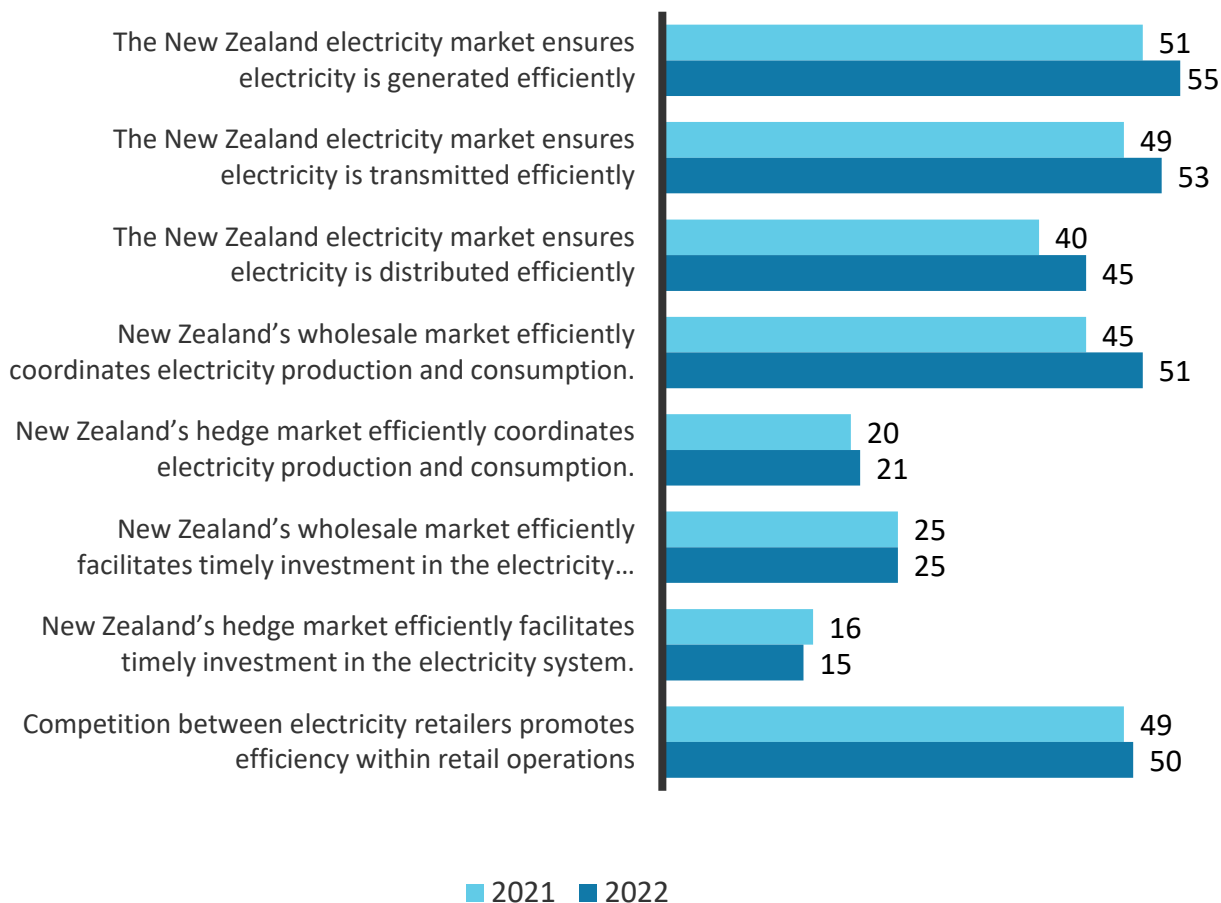
- Representatives from organisations that have been active for more than 20 years in the electricity industry were more likely to agree (60%), compared to those who have been active for 20 years or less (30%).

**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=114).

**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

It was apparent that respondents continue to be concerned about competition with multiple reasons given as to why they thought the New Zealand electricity market does not ensure electricity is generated, transmitted, or distributed efficiently and why wholesale and hedge markets do not efficiently coordinate electricity production and consumption.

The perceived 'inefficient structure' of switching between retailers was questioned as well as individual structural inefficiencies that were leading to increasing cost and technical challenges.

*Uncertain about competition between retailers as it was still dominated by large brands and still a large group of consumers who do not want to switch.*

*There is a cost to switch Retailer which is borne by those who don't switch and if you suggest you are going to switch you can get a better deal or some give away. This is like haggling in a shopping market of a 3rd world country.*

*Answers based on cost efficiency rather than technical efficiency. Network energy losses are simply passed through to Retailers, so operating the network efficiently isn't required for distributors, nor is preventing and minimizing non-technical losses.*

*Competition between electricity retailers increases churn costs so generally encourages bundling of services (e.g. internet, phones, gas), fixed term contracts, and "freebee" giveaways rather than electricity retail efficiency.*

*Too many individual networks with individual management structures creating challenges and increasing costs.*

Many respondents did not feel the hedge markets, spot, and future pricing were working as well they should. Mentioned were the low liquidity of the hedge market, concerns about the futures curve in relation to investment needs, and the focus on the spot market.

*The hedge market is one of the biggest impediments to retail competition and an efficient wholesale electricity market which needs to be addressed.*

*While the wholesale market may signal investment opportunities and decisions, the low liquidity of the hedge market does not promote long term certainty.*

*If by hedge market you mean ASX traded futures, then the futures curve is not anywhere long enough to make investment decisions. This is not a call to make the futures curve longer - there would be no benefit to the consumer to do that. The best generation investment decisions include consideration of expectation of fuel costs, ETS costs, expected demand, and alternative generation options.*

*The EA's blind spot is the hedge market. There is too much focus on spot. The hedge market is good at offering what suppliers want to offer and not very good at offering what buyers (industrials and independent retailers) want. Maybe the EA needs more input from people who understand the hedge market and understand what large consumers want.*

*The hedge market is a risk tool, it is not a price signal. NZ has a high hydro (renewable) component and renewables are volatile. That is why we hedge.*

*Wholesale market pricing signals the need for new generation, but as electricity is not very elastic prices are either too high or too low. There is only a small window as we transition between too much to too little of load/generation.*

In contrast a few respondents considered the market was working well.

*I assume the hedge market is fine, but I've not looked at it directly.*

*I think the market works superbly well in period of steady increase in demand or general stability. In periods of rapid change (whether real or imagined due to changes in tech, govt interventions or threat of interventions), then the market reduces its risk appetite.*

*Yep, our market is working very well. It has stood the test of time and has dealt with many an issue.*



# 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.

Several respondents sought improvements from the Authority, including improving the transparency of its work programme, better communication and engagement between the Authority and stakeholders.

*I am concerned that recent communications and engagement with the Authority is based on the assumption that EDBs are not considering non-network solutions and that the non-network solutions are inherently better at delivering outcomes for consumers.*

*The Authority needs to improve the transparency of its work programme and engage with stakeholders in workshops more often.*

*I think I have said enough, I only hope it doesn't fall on deaf ears... which I expect it will.*

*If the EA wants feedback on its success as a regulator, then this survey needs some questions about how EA engages with and responds to industry and consumer needs. For example, who is the person responsible for proposals (no names on consultations!), timely submissions posting, reinstating regulatory and consumer meetings to have the regulator - as a monopoly - held to account.*

Respondents also mentioned that there needs to be adjustments in the regulations settings to promote more investment in efforts to support New Zealand's climate change response, including the transition to zero emissions and a more efficient industry.

*Adjustments to the regulatory framework could significantly accelerate the adoption of distributed renewable (solar) energy generation - transparent and efficient market for solar energy exported to the grid- accessible to small generators- Framework for P2P monetization of excess solar power.*

*As the impact of climate change accelerates so will the pressure on the New Zealand government to speed up decarbonisation. For New Zealand's electricity industry this will likely focus on electrifying transport. To manage this new demand, the EA should look at the necessary regulations to manage this transition as it will place considerable strains on the industry market and infrastructure.*

*The electricity markets and the regulator that oversees them is a function of history, it is not necessarily fit for purpose in a new decentralised, zero carbon, flexibility driven market necessary for the future. This is not a criticism, it's an observation. Change is needed if we want an efficient, cost-effective energy "industry" in the future.*

*The transition to zero carbon issues in both Australia and NZ will take longer than most politicians and observers consider. There will be continuing demand for gas in Australia (which is key supplier to Asia which won't address wind power and solar - for population density and other space issues) and NZ will continue to require domestic gas supply. The hyperbole behind a transfer to hydrogen energy is questionable and will be costly at a time where global debt issues are great.*

Other suggestions included more consumer protection work, finding a market model that provides a reliable and economic supply and separating generation from retailing.

*What we desperately need is a look at the whole electricity market with the objective of finding a market model that provides a reliable and economic supply. I doubt this will happen because everybody involved in the market is profiting at the expense of the consumers.*

*We need more consumer protection work and strong enforcement to ensure that businesses deliver fairly.*

*Generation should be separated from retailing; the Chorus model should be looked at as a model for the electricity industry.*

The Authority was encouraged to learn from other in the industry both in New Zealand and overseas. Industry experience was important to engender respect among participants.

*The EA doesn't have a monopoly on good ideas and sound thinking about how the market should evolve. Neither does MDAG. If the market is to survive the transition the EA and MDAG are going to have to do a better job understanding and evolving the hedge market. Neither the MR or recent MDAG consultation paper demonstrate a good understanding of the hedge market.*

*Take a look at what is happening overseas - they are ahead of us on the curve. In the UK they are looking at nodal pricing at distribution level, in Australia they are running trials on VPP's and DER/DSO/TSO/Grid Generation optimisation, in the US they have implemented capacity markets and still had problems. What are the learnings and what is proactively being progressed in NZ? It is not clear from the EA strategic roadmap what is being translated into initiatives.*

*The EA Board should be replaced; it does not have industry-respected members. The EA CEO should also be someone who has industry experience and respect; things the current incumbent is strongly lacking. There needs to be an influx of industry-experienced staff into the EA, with a balance of non-industry people to provide a balance. Currently, there is hardly anyone with well-regarded industry experience and next to no one who has electrical/power system engineering with actual industry experience.*

# 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

- A new Peak Off Peak pricing plan.
- Changes in tariffs.
- Broadband services, new electricity TOU options.
- Broadband Solar PV.
- Broadband, EV plans, load shifting plans, solar buy backs.
- Good nights and broadband.
- Electricity tariff offering 3 hours free power between 9-12 each evening
- Various new tariff options, including products tailored for EV owners.

### Consumer support tools for vulnerable customers

- A program which helps customers to get through their financial difficulties during covid.
- New propositions for vulnerable customers.

### Customer engagement and support

- A range of products to support consumer engagement and use of energy. EV, free power, usage tools etc.
- Greater range of consultancy services including online support tools.
- Outage app trial to be expanded as part of CRM deployment.
- Battery outage support.
- We have provided new services to our customers that enabled them to provide new services to end consumers. Some of our portfolio businesses are constantly launching new products/services to end consumers, e.g. solar PV, smart EV charging, home ventilation, etc.
- Remote area power scheme consultancy services on remote connections.
- Backhaul telecommunications.
- Power purchase agreements and hedges.
- Arborist.

### EV

- EV plans / extended our app offering / PowerShouts (loyalty offer).
- EV plans, new sign up offers, Gas smart meters.
- EV time of use.
- Process heat electrification product. EV charging options including physical charges.
- Software to allow companies to offer an EV charger service.
- TOU electricity plans for electric vehicle owners.

### Solar/ hydro/renewable energy

- Demand management renewable generation community liaison.
- DG systems.
- Commissioned a new hydro generation station.
- Generation of solar power and sale of energy consumed on site (behind the meter) to end users (schools).
- Peer to peer solar sharing.

### Carbon trading

- Carbon price forecasts and analysis.
- Carbon trading.
- CarbonZero Electricity Supply to Customers.

### Energy Research

- Future energy studies.
- We published pilot Economic Value-Added analysis (also known as Economic Profit Analysis) for 2 large suppliers. We are not aware any public EVA has been undertaken for last 15-years.

### Connections/ contracts

- Flexible connection services.
- New Connections.
- Flexibility settlement contracts, PUT supply arrangements, alternative connection evaluation, physical options identification and valuation, decarbonisation transaction structuring.
- For the Australian market: E355 family meters (single-phase and 3-phase WC).

### Other

- Become a retailer also.
- Super Capacitor, Storage Heating.

