

STATEMENT OF INTENT

1 JULY 2021 – 30 JUNE 2025

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FOREWORD

Over the last 50 years, New Zealand’s electricity system has evolved to one that balances security, equity and environmental sustainability.

It should be a real source of pride for all New Zealand that we benefit from such a stable, reliable system delivered from an increasingly cleaner mix of generation.

The electricity system is a quiet achiever, powering essential services in the background as we go about our lives. That reliability will be critical as New Zealand transitions to a low-emissions economy. This is an exciting time to be taking up the reins as new Chair of the Electricity Authority during a period of energy transition for New Zealand. Supporting the potential of increased renewable generation is a primary focus for the Authority. This will support environmental and climate outcomes, and we need to ensure a secure and efficient electricity supply for consumers in the long term.

As the kaitiaki of electricity, the Authority’s purpose is to enhance New Zealanders’ lives, prosperity, and environment through electricity. We use our position to make positive changes that enable investment in the sector, all the while ensuring a level playing field. We also provide a stable regulatory regime and allow the market to grow with minimal reactionary interventions.

The Authority is a strategy-led organisation that takes a proactive, forward-looking regulatory approach to match the pace of change and help innovation flourish. Our strategic goals are intentionally ambitious as they represent our aspirations for the sector in the future.

They include:

- consumer centricity that guides regulation and the industry
- supporting low-emissions energy to electrify the economy
- building all stakeholders’ trust and confidence in the industry
- fostering competition across the system
- supporting innovation.

We see our role as broader than electricity – we are part of the wider energy discussion. However, we must evolve with the times, particularly to help unlock the full benefits for consumers by making sure regulatory settings are conducive to innovation and industry success. This year, we will continue to progress relevant recommendations from the Electricity Price Review, work closely with MBIE on the NZ Battery Project and monitor the energy market.

The Climate Change Commission’s advice is a watershed moment for New Zealand.

Transformation of the energy sector is critical to the transition to a low emissions economy. The electricity sector has a significant role to play.

Our interest is to ensure the transition happens efficiently and, critically, that security of supply is maintained as New Zealand’s energy system evolves.





The Authority will support electricity networks to be as ready as possible to transition to a low carbon economy, including by enabling efficient investment and operation of distributed resources, like batteries and electric vehicles. The work on transmission and distribution pricing reform and open networks is well-aligned with this objective.

We will also look to provide the right settings to facilitate investment in renewable generation, empowering consumers to reap the benefits of new and emerging technologies.

It is also important for the Authority to build trust and confidence in the industry, and the electricity system more broadly. A key part of this is taking a robust regulatory approach which enhances transparency, promotes good market behaviour, and demonstrates suitable compliance and enforcement when required. The Board is committed to achieving this.

For the benefits of consumers, the Authority will continue to actively consult across all its regulatory work and programmes, and work collaboratively and openly across the sector. This approach is particularly evidenced by the

customer-centred approach to revising the guidelines for medically dependent and vulnerable consumers, working alongside stakeholders to ensure fit-for-purpose guidelines that protect all consumers.

As the pace of change escalates, the Authority will step up to be more responsive and clear, effectively communicating, engaging, and consulting on how the Authority's decisions benefit or affect customers – even if some of the decisions are unpopular.

I would like to acknowledge my predecessor, Dr Brent Layton who was with the Authority since 2010. In particular, I would like to highlight his extensive involvement with the industry dating back to the 1990s and the success of developing an electricity market. The sector and consumers are better off because of his hard work. With Brent's help, there has been a smooth transition to a new Chair.

Electricity is a vital economic enabler, and our market is well-regarded internationally. As the Authority looks to the future, I look forward to working with the Board, Authority staff and stakeholders to continue to keep consumers at the heart of our decisions.

Dr Nicola (Nicki) Crauford
Chair, 15 June 2021

Mark Sandelin
Member, 15 June 2021





INTRODUCTION

Electricity is essential to modern life – its potential to support improved social, economic and environmental outcomes is significant.

BACKGROUND

On 1 November 2010, the Electricity Industry Act 2010 (the Act) established the Electricity Authority (the Authority) as an independent Crown entity and regulator of the electricity industry.

The Act sets out our statutory objective and functions and authorises the making of regulations and the Electricity Industry Participation Code 2010 (the Code). The Code sets out the rules for the electricity industry.

In addition to the Act, two key pieces of legislation are applicable to our work:

- The Public Finance Act 1989 defines the key accountability requirements for the state sector.
- The Crown Entities Act 2004 provides the specific planning and reporting requirements for Crown entities.

Over the past 10 years, the Authority has successfully combined the functions of rule making and rule enforcement to regulate how the market operates and to support incentives for industry investment and development.

In this time, we have introduced a suite of market-based tools, reduced barriers to competition, and most notably, navigated dry year risk. Through incremental changes to regulation, the Authority has made a significant contribution to New Zealand’s 85% renewable profile while ensuring a reliable supply of electricity.

The Authority has advocated for increased competition with sound enforcement of market rules to further a competitive industry culture and delivery of intended outcomes for consumers. Our pricing reform projects aim to achieve prices which reflect the true cost of the service provided and, in doing so, send the right signals to potential investors and foster innovation and the uptake of technology.

Incremental and consistent regulatory change will support reliable and affordable electricity over the long term.

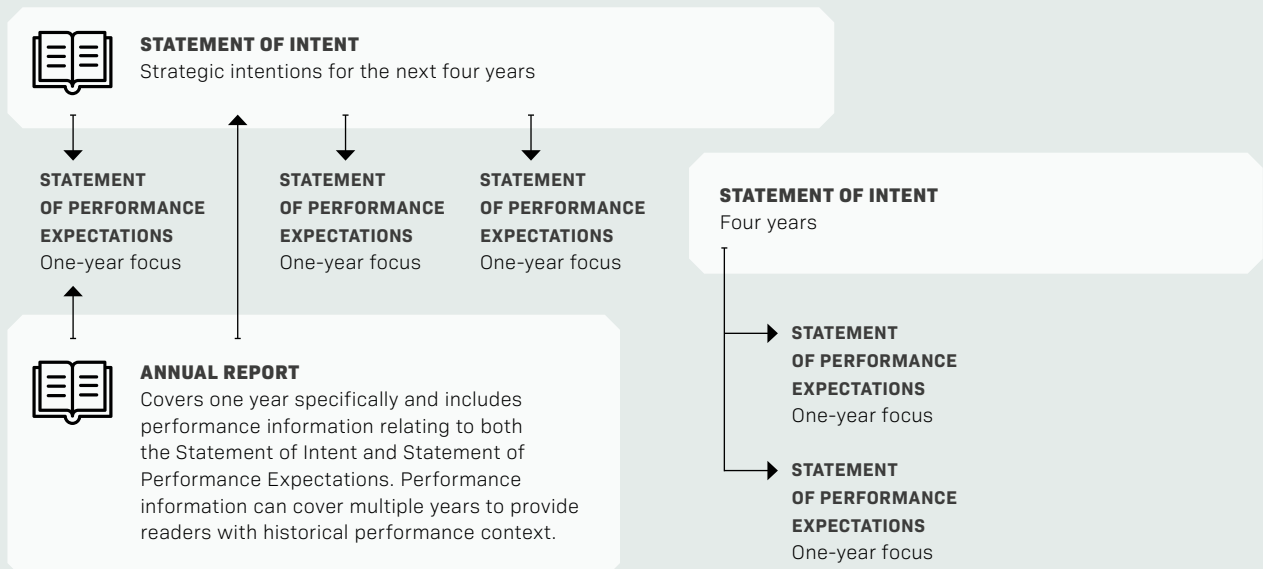
ACCOUNTABILITY STATEMENT

This Statement of Intent is a public accountability document required under sections 139 and 141 of the Crown Entities Act 2004. It outlines our long-term strategic intentions for the period 1 July 2021 to 30 June 2025. The Statement of Intent may be updated at any time, but no later than 1 July 2024.

For detailed financial and non-financial performance information, please see our Statement of Performance Expectations, which is published annually and is available on our website. For further information about our work, visit ea.govt.nz.

PLANNING AND REPORTING CYCLE

The diagram below sets out how each of our key publications fits into our planning cycle.





ELECTRICITY IN NEW ZEALAND

Over the past 20 years, New Zealand's electricity market has been praised domestically and internationally – it is considered world leading. During this time, the Authority's work embedding a market-based regime has delivered significant benefits that other jurisdictions can only envy. The International Energy Agency (IEA) said in its 2017 review of New Zealand's energy policies:¹

“With its unique resource base, New Zealand is a success story for the development of renewable energy, notably hydro and geothermal, without government subsidies. Geographically isolated, New Zealand has developed robust policies for security of supply.”

New Zealand also regularly features in the top 10 of the World Energy Council's energy 'trilemma' index ranking.² This reflects our strong balance of energy security, energy equity and environmental sustainability.

We have high levels of system reliability and efficiency, the competitive wholesale and retail markets provide consumers access to increasingly efficient pricing, and approximately 81% percent of our electricity already comes from renewable sources. It's also one of our most capital-intensive industries with around \$7-9 billion spent on electricity per year.

IN NEW ZEALAND, THERE ARE:³

1.79m

RESIDENTIAL CONSUMERS

188,000

COMMERCIAL CONSUMERS

87,000

AGRICULTURE, FORESTRY AND FISHING CONSUMERS

48,000

INDUSTRIAL CONSUMERS

Still, there is significant opportunity for electricity to play a bigger role in helping New Zealand grow, meet its challenges and support its economy.

- 1 International Energy Agency (2017) Energy Policies of IEA Countries: New Zealand 2017 Review. Available online at <https://www.iea.org/reports/energy-policies-of-iea-countries-new-zealand-2017-review>
- 2 World Energy Council (2020) World Energy Trilemma Index 2020. Available online at <https://trilemma.worldenergy.org/reports/main/2020/World%20Energy%20Trilemma%20Index%202020.pdf>
- 3 <https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-statistics-and-modelling/energy-statistics/electricity-statistics/>, December 2020.

DRIVERS OF OPPORTUNITY

ELECTRIFICATION TO COMBAT CLIMATE CHANGE

The release of the Climate Change Commission's advice represents a watershed moment for New Zealand. It sets out a pathway for delivery of New Zealand's 2050 net zero target in an achievable and affordable way.

Electrification is key to reducing the emissions from New Zealand's wider energy system and economy. While the emissions from the electricity sector are already relatively low, the share of renewables in total primary energy supply reached only 40% in 2019. Much more renewable generation of all scales is needed – especially to transition away from fossil fuels used in heat and transport.

Our current activities align well with the Commission's recommendations – we are already working hard to ensure that the transition occurs efficiently over the coming decades, and that New Zealanders have trust and confidence in the ability of the system to remain affordable and reliable as it carries a greater responsibility for New Zealand's energy needs.

WELLBEING, AFFORDABILITY AND ENERGY AS AN ECONOMIC DRIVER

The Government's Economic Plan for New Zealand 2019 aims “to build a productive, sustainable and inclusive economy, to improve the wellbeing and living standards of all New Zealanders”. Sustainable and affordable energy systems are key economic shifts required to achieve this vision.

ENERGY SYSTEMS AND CONSUMER BEHAVIOUR

As technology and society progress, so does disruption to traditional electricity business models. Changes in consumer behaviour, electricity generation, consumption, storage and the use of smart technology will influence evolution of our energy system, including multi-directional power flows on networks.



OUR PURPOSE

We guide the nation's electricity system on behalf of all New Zealanders – promoting positive outcomes today and ensuring continued enhancement and reliability for future generations.

We are the **kaitiaki**
of electricity.

Our work provides the platform from which electricity can be used to make things better.

Our purpose is to **enhance**
New Zealanders' lives,
prosperity & environment
through electricity.

Electricity is an enabler – a mechanism for change and progress.

Electricity regulation is the tool through which we can contribute to wider outcomes. Electrification of the wider energy system will play a key role in the transition to a low-emissions economy.

Electricity plays a critical role in the quality of our lives and businesses, the state of our environment, the strength of our communities, the performance of our economy and the nation as a whole.



OUR PLACE IN THE ENERGY SYSTEM

The role of regulation

An independent regulator is appointed by Government to govern or manage complex systems on behalf of the public. The intent is for the regulator to steward the system so that it produces desired or beneficial outcomes that might not occur naturally through pure market forces.

Regulators are often now expected to think more broadly about the wider environment and the interaction of their sector with others – considering long-term economic, social, cultural and environmental implications together – and embed principles of the Treaty of Waitangi to ensure the right rules are in place that both enable and guide change.

ELECTRICITY INDUSTRY REGULATION

The Authority was established as an independent Crown entity to regulate the electricity industry for the long-term benefit of consumers.

Our primary function is to regulate New Zealand's electricity system and markets, enforcing the rules and holding industry participants to account through active monitoring and enforcement. Where required, we facilitate the development and enhancement of the markets to ensure their robustness and the delivery of long-term benefits to consumers.

Acting as kaitiaki, our regulatory stewardship aims to both protect the progress and strengths of New Zealand's electricity system for generations to come, and ensure industry participation continually builds new strengths and adds value as it delivers the outcomes for consumers Parliament expects of us.

Our independence is valuable for promoting high-performing electricity markets – reducing the risk of intervention and increasing predictability in how the regulatory regime operates. This is important for sectors like electricity which are technically complex and rely on long-lived, capital-intensive investments.

While this means we give advice rather than take direction, we are attuned to the external environment in which we operate and the Government's key priorities.

Our work needs to meet the requirements of legislation and best-practice guidance provided by central agencies,⁴ the Office of the Controller and Auditor-General and Audit New Zealand.

THE BENEFITS OF HIGH PERFORMING MARKETS

In large, dynamic and interconnected systems, the task of coordinating decision-making between a large number of parties is a complex activity. Markets are crucial –

bringing together the breadth of economic participants, and through their interactions and response to price and demand signals, driving towards efficient allocation of system and economic resources to achieve desired outcomes.

Electricity is fundamental to our way of life. New Zealand's high-performing electricity markets play a key role in contributing to the overall health and efficiency of the economy – creating both benefits for end consumers and pathways for growth, innovation, greater service and efficient infrastructure investment, and ultimately a cost-effective transition to low-emissions energy.

To increase their performance and realise the benefits of competition, markets require regulatory certainty and long-term investment confidence. This is supported through greater transparency of market information, predictable regulatory change and sound enforcement of market rules.

For over 20 years, the wholesale spot market has operated effectively in providing signals for efficient generation investment, including managing dry year risk when the lakes used for hydro-electric generation have less water. This has been supported in more recent years by well-functioning hedge markets that provide parties with the means to enter into forward contracts for purchasing electricity, and the ancillary services markets which are used to ensure New Zealand's electricity system is stable and reliable.

This approach also delivers for consumers. Consumers can now choose from many different retail brands, plans and packages on offer. Switching between providers is relatively easy and quick, and New Zealand has one of the highest switching rates in the world.

WHO AND WHAT WE REGULATE

Nearly every aspect of the electricity industry and participant type is covered in the Code, including:

- generation of electricity
- wholesale electricity market
- transmission via the national grid
- system operation
- security of supply
- market arrangements
- metering
- distribution via local networks
- retail electricity market.

⁴ The central agencies are The Treasury, The Public Service Commission and the Department of the Prime Minister and Cabinet.



OUR FUNCTIONS

The things we do

The Act sets out our functions, describing the activities we perform and the tools through which we can pursue our statutory objective and ambitions. They can be summarised into four main functions.

OPERATE THE ELECTRICITY SYSTEM AND MARKETS

We are responsible for the day-to-day operation of the electricity system and markets. To achieve this, we contract out some services including the role of system operator, which provides the real-time coordination of sending generated electricity across the national grid to meet demand from consumers.

MONITOR, INFORM AND EDUCATE

Transparency and understanding are vital to the operation of the electricity markets. Our market monitoring, information and education work focuses on making data, information and tools available, increasing participation, and improving awareness of how electricity markets function.

ENFORCE COMPLIANCE

We ensure the Act, regulations made under the Act and the Code are followed by electricity industry participants. Our compliance function also helps improve the industry more generally, as lessons learned support our education of participants, and help us to identify and resolve ongoing or systemic issues.

PROMOTE MARKET DEVELOPMENT

To enable New Zealand’s electricity markets to deliver better outcomes for consumers, we maintain a responsive regulatory environment that both reflects industry’s current state and supports innovation and change. Key tools for market development include market facilitation measures and amending the Code.

The combined function set gives us a range of levers to promote certain behaviours or outputs from the sector.

Our annual Statement of Performance Expectations details our intended operations for the financial year and the measures we use to monitor performance for each function. We publish the results every year in our Annual Report.

Did you know? We create tier three legislation

LEVELS OF LEGISLATION

WHO CREATES THE LEGISLATION

First tier
Acts of Parliament

Parliament sets rules through Acts of Parliament. The Electricity Industry Act 2010 (the Act) is the primary Act that relates to our work.

Second tier
Regulations

The Government sets rules through regulations. While the Authority may provide advice on regulations and Acts in relation to the electricity sector, this work is mainly done by the Ministry of Business, Innovation and Employment.

Third tier
The Code

The Authority sets rules for the electricity sector through the Electricity Industry Participation Code 2010 (the Code).



STATUTORY OBJECTIVE

What we are accountable for

The Act gives us a statutory objective to promote competition in, reliable supply by, and efficient operation of, the electricity industry for the long-term benefit of consumers. The statutory objective is what we are accountable to deliver.

COMPETITION

Competition helps ensure New Zealanders have plenty of choice about how they get and use electricity, and improves their access to competitive pricing. We encourage competition in all electricity-related markets, right across the supply chain, taking into account long-term opportunities that will lead to better outcomes for consumers.

RELIABILITY

Reliability is important because homes and businesses depend on a continuous supply of electricity. We seek reliable day-to-day and long-term security of electricity supply for consumers. Our regulatory focus on reliability will become even more important as the country reduces emissions through increased electricity use.

EFFICIENCY

When efficiency is high, electricity system resources and investments are focused in the right areas, and costs to operate the system can reduce and become more flattened. Ongoing innovation and improvements help create greater efficiency. For a consumer, greater efficiency should translate into more affordable electricity and services.

We use our statutory objective **Competition, Reliability** and **Efficiency** to drive the delivery of our strategy. Details on how our strategy aligns with our statutory objective are set out on the following pages.





OUR STRATEGY

We have been successful in promoting strong competitive markets. Now, we're thinking more broadly to ensure our regulation responds to a changing world.

Strategic framework

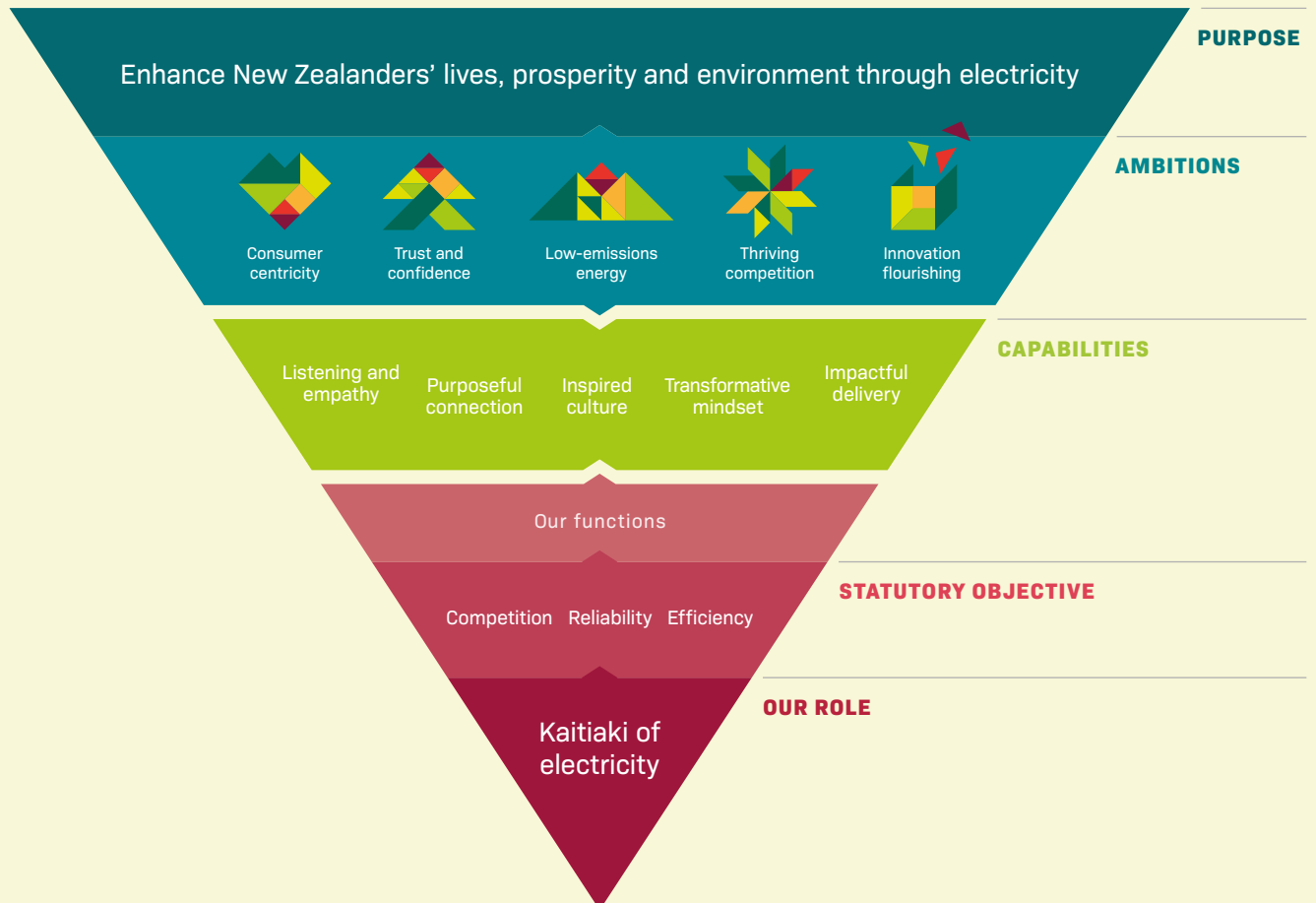
As the regulator of New Zealand's electricity system, our work provides a platform for the country to achieve its aspirations for enhanced quality of life, prosperity, the environment and the transition to a low-emissions economy.

Our integrated framework – aligned to the tikanga-based values of kaitiakitanga (long-term sustainability), manaakitanga (social responsibility), whanaungatanga (social connections) and whairawa (thriving whānau) – sets out five strategic ambitions for the sector that guide the prioritisation of our work.

The ambitions provide focus in both the pursuit of our statutory objective and our purpose – ensuring we create wider long-term benefit for New Zealand.

Five key strategic capabilities underpin success. We focus on these capabilities to ensure work we do achieves measurable results.

INTEGRATED STRATEGIC FRAMEWORK





Strategic ambitions

Our strategic ambitions for the sector are more than an aim or a prioritisation tool – they describe success and how the electricity industry can make a difference.

We are taking deliberate action on behalf of New Zealand consumers. Our five sector ambitions reflect a collective call to action for and by the sector and show our commitment to the broader economic and social goals to which electricity can contribute.

The successful delivery of our functions and statutory objective are a fundamental part of all five ambitions. This drives a continued focus on delivery of high-quality operational activities, increasing retail and wholesale market competition, enforcing compliance and improving the regulatory, transmission and distribution systems.

HOW OUR STRATEGIC AMBITIONS AND STATUTORY OBJECTIVE WORK TOGETHER

Our statutory objective is linked to our strategic ambitions. We use Competition, Reliability and Efficiency as regulatory tools to drive the success of our ambitions.

This holistic system-based approach towards achieving our ambitions and objective highlights how the two work together to achieve our purpose.

The table below summarises how our strategic ambitions align with our statutory objective. Each ambition has a primary relationship to a part of our objective and may also have a secondary or tertiary relationship. The circle size indicates the level of relationship between an ambition and part of our objective.

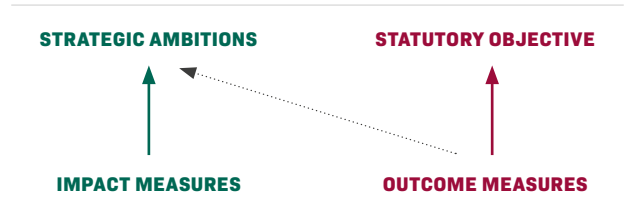
HOW WE MEASURE PROGRESS

Each *strategic ambition* has a series of **impact measures** that relate to it. Our impact measures are designed to measure the contribution our work makes towards achieving our strategy.

Similarly, each part of our *statutory objective* (Competition, Reliability, Efficiency) has a series of **outcome measures** that relate to it. Our outcome measures are designed to measure the contribution our work makes towards achieving our statutory objective.

Our system-based approach means that the outcome measures for our statutory objective also contribute to our strategic ambitions. However, while they contribute to the ambitions, outcome measures are not used to directly measure progress against a given ambition – this is measured with impact measures.

The graphic below highlights the relationship between strategic ambitions, statutory objective and their performance measures.



We report on progress made towards our strategic ambitions and statutory objective every year in our Annual Report. Reporting on our impact and outcome measures includes a mix of statistical analysis and qualitative assessments.

WHAT SUCCESS LOOKS LIKE

Due to the long-term nature of our strategic ambitions, it may take several years for measurable change to become clear. Over the next four years, success will be seen by achieving the desired trends for each measure. Once a robust baseline has been established, we will look to implement tangible targets.

External factors can also influence results. When relevant, we provide commentary on these influences in our Annual Report.

In the following pages, we lay out our impact measures for each strategic ambition. We have also identified the high-level outcome measures of our statutory objective that contribute to that ambition.

STATUTORY OBJECTIVE (outcome measures)		Competition	Reliability	Efficiency
STRATEGIC AMBITIONS (impact measures)	Low-emissions energy	●	●	●
	Consumer centricity	●	●	●
	Trust and confidence	●	●	●
	Thriving competition	●	●	●
	Innovation flourishing	●	●	●



LOW-EMISSIONS ENERGY

Electrification is a key enabler in the transition to a low-emissions economy.

Unlocking the potential for more renewable generation is a focus for the Authority. We work hard maintaining, developing and implementing market rules which give investors confidence and signal where additional generation is required.

The Climate Change Commission's advice shows the need to electrify New Zealand's heat and transport and increase low-carbon electricity generation. Making more use of New Zealand's renewables advantage is essential in our transition to a low-emissions economy. The required level of investment in new generation will be significant.

We need to promote a stable investment environment with robust rules and clear price signals. This will ensure the transition is as efficient as possible while maintaining energy security, system adaptability, and affordable electricity for consumers.





How we measure our impact

IMPACT	MEASURE	SOURCE	DESIRED TREND
Our electricity market settings enable an efficient transition to reliable low-emissions energy in New Zealand	Improved participant confidence in settings to facilitate efficient transition	Participant survey	Increasing
	Improved participant confidence in reliability as New Zealand transitions to low-emissions energy	Participant survey	Increasing
	Assessment of the ability of market settings to facilitate an efficient transition to low-emissions energy	Independent assessment	Increasing
Network and market price signals support the lowest overall cost to consumers	Level of implementation of cost-reflective network prices, transmission pricing and real-time pricing	Authority data	Increasing
A suite of statistics shows overall improvement*	Overall improvement in the following statistics: <ul style="list-style-type: none"> ▪ Increased occurrence of demand bids setting spot prices ▪ Capacity and energy margins are within efficient bounds or are moving towards those bounds, as measured by the annual security assessment ▪ Investigation of reliability events does not identify systemic issues, as measured by case-by-case analysis 	Authority data	Increasing

* These statistics are also used to measure against one or more parts of our statutory objective: Competition, Reliability, Efficiency.

RELATED OUTCOME MEASURES

The table below shows the outcome measures that also relate to low-emissions energy. Maintaining reliability and efficiency within the electricity sector is critical to achieving our ambition of low-emissions energy, as a secure and stable investment environment encourages investment in low-emissions solutions. Competition helps ensure New Zealanders have a choice about how they get their electricity, including via low-emissions options.

STATUTORY OBJECTIVE	OUTCOME MEASURE*	SOURCE	DESIRED TREND
Competition	Improved participant perceptions of the competitiveness in electricity markets	Participant survey	Increasing
Reliability	Improved participant perceptions on the efficiency of supply reliability	Participant survey	Increasing
	Overall improvement across a suite of statistics on efficient levels of reliable electricity supply	Authority data	Improving
Efficiency	Improved participant perceptions of the efficiency in electricity markets and transmission and distribution arrangements	Participant survey	Increasing
	Overall improvement across a suite of statistics on electricity system and market efficiency	Authority data	Improving

* These are the headline measures that relate to the strategic ambition. For a full overview of the outcome measures for each part of the statutory objective, please refer to Appendix A.



CONSUMER CENTRICITY

When decision-making is centred around consumer outcomes more diverse needs can be met, and expectations exceeded.

We have focused on creating long-term benefit for consumers through development of market-oriented solutions to place downward pressure on price, embrace new technology, and enhance consumers' choice of plans, packages and retailers.

Expectations of both regulator and industry have shifted – recognising a need to think more broadly about the wider environment we interact with, strengthen the consumer voice, and deeply consider how our decisions affect outcomes for all consumers – whether they be domestic, community, small, medium or large businesses, or industrial consumers.

We will put consumers and our understanding of their varied perspectives and aspirations front and centre of what we do and how we do it. Consumer centricity in energy system development is a key enabler for innovation, and further improving consumers' access to better pricing, control, and ability to participate in energy markets.





How we measure our impact

IMPACT	MEASURE	SOURCE	DESIRED TREND
Our decisions improve the way the sector meets consumers' needs	Improved participant perceptions in the electricity system's ability to meet consumers' ongoing needs	Participant survey	Increasing
	Assessment of the quality of our decision-making processes on meeting consumers' needs	Independent assessment	Increasing
	The customer transfer process works effectively in the event of retailer default	Authority data	Increasing
Consumers are engaged with through our decision-making processes	Assessment of the quality of our engagement with consumers in our decision-making processes	Independent assessment	Increasing
	Increased consumer awareness of the impact of the Authority's role and the benefit our work has on them	Authority data	Increasing

RELATED OUTCOME MEASURES

The table below shows the outcome measures that also relate to consumer centricity. The long-term benefit of consumers underpins all our outcome measures. Understanding perceptions of competition, reliability and efficiency provides insight into how the industry is meeting consumers' needs.

STATUTORY OBJECTIVE	OUTCOME MEASURE*	SOURCE	DESIRED TREND
Competition	Improved participant perceptions of the competitiveness in electricity markets	Participant survey	Increasing
	Improved consumer perceptions of the competitiveness of electricity markets	Consumer survey	Increasing
Reliability	Improved consumer perceptions of the reliability of electricity in New Zealand	Consumer survey	Increasing
	Overall improvement across a suite of statistics on efficient levels of reliable electricity supply	Authority data	Improving
Efficiency	Improved participant perceptions of the efficiency in electricity markets and transmission and distribution arrangements	Participant survey	Increasing
	Improved consumer perceptions of the efficiency of electricity in New Zealand	Consumer survey	Increasing

* These are the headline measures that relate to the strategic ambition. For a full overview of the outcome measures for each part of the statutory objective, please refer to Appendix A.



TRUST AND CONFIDENCE

High levels of trust and confidence drive action, acceptance and reduce intervention.

To date, we have emphasised the development of rules that promote consumer choice, give clear investment signals and treat participants equally. We monitor industry closely and act when required – favouring a largely non-interventionist, facilitative approach.

However, actively building trust and confidence in the industry and regulation through greater transparency, understanding and improved behaviours is increasingly important. Consumers expect participants to be held to account to rules designed to provide long term benefit. Participants require a stable investment framework and regulatory environment to enable decision-making that will deliver further benefit to consumers.

As regulator, we need to continue using markets and our compliance function to create the right incentives for progress, work with participants to ensure better practice by all of industry, and enhance consumers' and stakeholders' understanding of the electricity industry and how it delivers benefit.



How we measure our impact

IMPACT	MEASURE	SOURCE	DESIRED TREND
The Electricity Authority and our actions promote trust and confidence	Improved participant perceptions of trust and confidence in us and how we are fulfilling our role	Participant survey	Increasing
	Assessment of the quality of material produced (e.g. EMI reports, thought pieces)	Independent assessment	Increasing
We are active regulators who enhance operational efficiency and reliability	Improved participant perceptions of reliability and operational efficiency	Participant survey	Increasing
	Market services are resilient to adverse events (as measured on a case-by-case basis)	Authority data	Improving
We improve compliance and sector conduct	Improved participant perceptions of the quality of our monitoring	Participant survey	Increasing
A suite of statistics shows overall improvement*	Overall improvement in the following statistics: <ul style="list-style-type: none"> ▪ Pricing in scarcity events reflects opportunity cost, as measured by case-by-case analysis ▪ Effective management of dry years or emergency events, as measured by case-by-case analysis ▪ Dry year prices reflect storage levels, as assessed by case-by-case analysis 	Authority data	Increasing

* These statistics are also used to measure against one or more parts of our statutory objective: Competition, Reliability, Efficiency.

RELATED OUTCOME MEASURES

The table below shows the outcome measures that also relate to trust and confidence. An efficient, reliable and secure supply of electricity is a key driver of trust and confidence.

STATUTORY OBJECTIVE	OUTCOME MEASURE*	SOURCE	DESIRED TREND
Competition	Improved participant perceptions of the competitiveness in electricity markets	Participant survey	Increasing
Reliability	Improved participant perceptions on the efficiency of supply reliability	Participant survey	Increasing
	Improved participant perceptions of the balance between the cost and reliability trade-offs	Participant survey	Increasing
	Improved consumer perceptions of the reliability of electricity in New Zealand	Consumer survey	Increasing
	Overall improvement across a suite of statistics on efficient levels of reliable electricity supply	Authority data	Improving
Efficiency	Improved participant perceptions of the efficiency in electricity markets and transmission and distribution arrangements	Participant survey	Increasing
	Improved consumer perceptions of the efficiency of electricity in New Zealand	Consumer survey	Increasing
	Overall improvement across a suite of statistics on electricity system and market efficiency	Authority data	Improving

* These are the headline measures that relate to the strategic ambition.
For a full overview of the outcome measures for each part of the statutory objective, please refer to Appendix A.



THRIVING COMPETITION

Market competition is a key enabler to deliver a better energy future – driving progress, affordability, efficiency and valuable outcomes for New Zealand.

Our market-oriented solutions have successfully reduced barriers to retail participant entry and expansion. Consumers can now choose from over 40 different brands, with some now opting to pay the wholesale market spot price rather than a fixed plan.

Increased disruption to traditional electricity business models and industry structure through competition improves choice, control and affordability for consumers. Competition and competitive pressure now need to expand across new parts of the supply chain to drive efficiency, reliability, innovation and integrate new technology.

We're committed to encouraging participation and reinforcing competition in traditional and emerging markets by putting in place the mechanisms needed to maintain a level playing field. Our regulatory environment needs to enable participants to better manage risk and provide consumers value for money through a growing range of innovative products, services and opportunities to participate.





How we measure our impact

IMPACT	MEASURE	SOURCE	DESIRED TREND
New entrants can compete on a level playing field with established participants	Improved participant perceptions of ability for new entrants to compete with established participants	Participant survey	Increasing
Market settings enable competition between distributed energy resources and established technology solutions	Number of network companies seeking to procure non-network services on a competitive basis	Participant survey (network companies only)	Increasing
	Number of participants providing non-network services to network companies	Participant survey (network companies only)	Increasing
	Improved participation in a range of electricity markets, for example, demand-side participation in a range of markets	Authority data	Improving

RELATED OUTCOME MEASURES

The table below shows the outcome measures that also relate to thriving competition.

Our outcome measures for competition are particularly relevant for this ambition, as being both a strategic ambition and part of the statutory objective reflects the importance of competition to electricity markets and the wider industry. Competitive pressure also drives efficiencies within the market.

STATUTORY OBJECTIVE	OUTCOME MEASURE*	SOURCE	DESIRED TREND
Competition	Improved participant perceptions of the competitiveness in electricity markets	Participant survey	Increasing
	Improved consumer perceptions of the competitiveness of electricity markets	Consumer survey	Increasing
	Overall improvement across a suite of statistics on electricity market competition	Authority data	Improving
Efficiency	Improved participant perceptions of the efficiency in electricity markets and transmission and distribution arrangements	Participant survey	Increasing
	Overall improvement across a suite of statistics on electricity system and market efficiency	Authority data	Improving

* These are the headline measures that relate to the strategic ambition. For a full overview of the measures for each part of the statutory objective, please refer to Appendix A.



INNOVATION FLOURISHING

Evolution of the electricity system will be achieved through innovation and disruption, with both participants and the Authority thinking beyond the status quo.

The unique challenges of New Zealand's electricity market have led to innovative approaches to wholesale, retail, reserve management, security of supply, and supporting participants to manage risk. Our preference for market-based instruments – proven to be technology-friendly – positions New Zealand for continued change.

Innovation and new technology will affect how electricity is generated, distributed and consumed, and ultimately change the cost and competitive structure of our industry. Data transparency, insights and automation will act as key enablers for increased deployment of distributed energy resources, and support consumers' ability to control their energy use and participate in new ways.

Our role is to help unlock the full benefits of innovation for consumers by making sure the settings are conducive to innovation and industry success. This demands a proactive, agile and forward-looking regulatory approach to match the pace of change and help innovation flourish.





How we measure our impact

IMPACT	MEASURE	SOURCE	DESIRED TREND
The regulatory system accommodates new business models	Improved participant perceptions of the ability of the system to support rapid change	Participant survey	Increasing
	Improved perceptions of the current market settings' ability to encourage innovation	Participant survey	Increasing
	Number of sandboxes, trials and pilots in play across the network	Authority data	Increasing
	Increased number of participants providing new services to consumers	Authority data	Increasing
The availability and transparency of industry data is continuously improved	Number of data transactions we have facilitated	Authority data	Increasing
	Number of new datasets we have provided access to	Authority data	Increasing

RELATED OUTCOME MEASURES

The table below shows the outcome measures that also relate to innovation flourishing. Innovation, competition and efficiency work hand in hand, as competitive pressures and improved efficiencies drive innovation. In turn, ongoing innovation leads to greater efficiencies and changes the competitive structure of the industry.

Throughout this, the balance between the cost to and reliability of the electricity system will also need to be met to ensure a stable, reliable environment for innovation to occur.

STATUTORY OBJECTIVE	OUTCOME MEASURE*	SOURCE	DESIRED TREND
Competition	Improved participant perceptions of the competitiveness in electricity markets	Participant survey	Increasing
Reliability	Improved participant perceptions of the balance between the cost and reliability trade-offs	Participant survey	Increasing
Efficiency	Improved participant perceptions of the efficiency in electricity markets and transmission and distribution arrangements	Participant survey	Increasing
	Improved consumer perceptions of the efficiency of electricity in New Zealand	Consumer survey	Increasing

* These are the headline measures that relate to the strategic ambition. For a full overview of the measures for each part of the statutory objective, please refer to Appendix A.



ORGANISATIONAL CAPABILITY

The organisation and investment areas have changed progressively over the past 10 years. We expect the organisation to continue to evolve.

As ever, our staff are passionate about the contribution we make to New Zealanders' lives and our country as a whole.

In addition to our ambitions for the sector towards which we will invest our effort, our strategy identifies the strategic capabilities we will rely on for successful delivery.

We recognise the role of the public service in supporting the Crown's commitment to its relationship with Māori. The Authority is committed to exploring how best to engage with Māori and to considering Māori perspectives in its decision making.





STRATEGIC CAPABILITIES

Listening and empathy

To deliver value and the best outcomes for the breadth of different electricity consumers, we need to understand who they are, their experiences, perspectives and needs. This understanding can only come from increased curiosity and genuine, open listening. We also need to exercise this capability with the regulated community. We will adopt a customer-centred approach to ensure the regulatory platform better serves people, businesses and the nation.

Purposeful connection

To grow trust and confidence, build knowledge and progress the electricity sector, we will deepen our connection to those we serve, Māori, the regulated community, and agencies we must collaborate with and can learn from. We also need to broaden our networks internationally. We will be clear about who we engage with and why, and actively build relationships. We need to listen and demonstrate we've heard, and better communicate sector success.

Inspired culture

To achieve great outcomes for New Zealand, our internal talent needs to grow and thrive. We will invest in our culture, diversity and capability, and provide opportunities for collaboration and progression so our people feel fulfilled and are empowered to do their best work. Their valued experience and commitment are the foundation from which the Authority will change, grow its professional maturity and enhance the craft of our regulation. We remain committed to equal employment opportunities in our employment policies and procedures.

Transformative mindset

To meet the pace of change and drive innovation, we need to be creative, fast, bold, practical and flexible – choosing processes and methodologies that support responsiveness, agility, and better solutions. We will improve our governance, be more pragmatic, experiment, iterate and scan horizons – both within and outside energy, domestically and internationally.

Impactful delivery

To achieve our intended outcomes, we need to be more efficient and strategic – prioritising and aligning our efforts, and using more streamlined, transparent processes. We will invest in systems and tools for success, better leverage internal knowledge, resources, data, technology, and apply a continuous improvement mindset to all our activities.



Climate change and greenhouse gas emissions

As an independent Crown entity, the Authority intends to lead by example, taking active steps to measure and reduce our greenhouse gas (GHG) emissions.

We have identified that our main sources of GHG emissions are:

- purchased energy
- travel
 - road travel (taxis and rental cars)
 - air travel (domestic and international).

We will measure and report our emissions in these areas with the goal to reduce emissions over time, in line with the Government's goal of net zero emissions by 2025 and the Climate Change Commission's recommendations.

As we grow our capability in this area, we may identify further indirect sources of GHG emissions. Where practicable, we will include these in future emissions reporting.

Assets and processes

We strive to ensure that our systems, tools and processes lead to improved quality, efficiency and productivity, and support international best practice.

MARKET SERVICES PROVISION

The Authority's intangible assets are comprised of acquired software, systems, and associated licences used by the service providers to facilitate the operation of the electricity market; the most significant of which is the software used in the operation of the electricity market. At 30 June 2020 this software had a cost of \$27.345 million, net carrying value of \$3.466 million, and an estimated remaining useful life of between three and five years.

These market services are provided under contract by NZX,⁵ Jade⁶ and Energy Market Services.⁷ An important feature of the contracts is that the service providers ensure the systems function, operate and perform on a continuing basis so that the services are delivered in accordance with performance standards. This includes providing the hardware and other supporting infrastructure.

THE REAL-TIME COORDINATION OF THE ELECTRICITY SYSTEM

This is a critical function for the Authority, carried out under contract by the system operator Transpower New Zealand Limited. Unlike the market services, the Authority does not own the system operator assets. The Authority does, however, work closely with the system operator in the development of its capital plan. In December 2020, the Authority signed a new service provider agreement with the system operator, effective from 1 July 2021.

INFORMATION SYSTEMS

We pursue a programme of continuous development to increase the effectiveness of our information systems. This, combined with ongoing release of information and data, supports improved Authority and stakeholder decision-making.

Our dedicated Electricity Market Information (EMI) website includes extensive sets of data, market performance metrics, APIs, a forum for analysts to ask questions and share interact, and analytical tools.⁸

Governance, advice and service providers

AUTHORITY BOARD

Electricity Authority Board members are electricity consumers and represent the interests of consumers. Following a public call for nominations, they are appointed by the Governor-General on the recommendation of the Minister.

There are between five and seven members on the Authority Board. Members hold office for a term of up to five years and may be reappointed.

Details about membership of the Authority Board, Chief Executive and management team is available at [ea.govt.nz/about-us/who-we-are](https://www.ea.govt.nz/about-us/who-we-are).

BOARD COMMITTEES

There are three Board committees.

- The **Audit and Finance Committee** advises on the quality and integrity of the Authority's financial reporting, including managing the relationship with the external auditor. It also considers whether appropriate governance, policies and operating processes are in place to identify and manage risk and oversees and assesses the internal audit process.
- The **Compliance Committee** makes decisions on alleged breaches of the Act, various regulations and the Code. It determines appropriate enforcement responses and whether settlements should be approved or further investigation undertaken, and makes recommendations to the Board regarding the laying of formal complaints with the Rulings Panel and instigating prosecutions.
- The **System Operations Committee** oversees the performance monitoring of the system operator, identifies any emerging system security risks and addresses any other matters relating to the system operator's obligations under the Code.

RULINGS PANEL

The Rulings Panel is an industry dispute resolution and disciplinary body established under the Electricity Governance Regulations 2003 and continued by the Act, which sets out its membership, functions and funding arrangements. The Governor-General appoints panel members.



The Rulings Panel's functions include assisting with enforcing the Code by dealing with complaints about Code breaches, hearing appeals against certain decisions made under the Code, and resolving certain disputes relating to the Code. If a complaint about a Code breach is upheld, the Rulings Panel can make a range of orders including imposing penalties, awarding costs or compensation, issuing suspension or termination orders, and recommending Code changes.

Information about the Rulings Panel is available at ea.govt.nz/code-and-compliance/rulings-panel.

SECURITY AND RELIABILITY COUNCIL AND OTHER ADVISORY GROUPS

The Act sets requirements to establish the Security and Reliability Council and other advisory groups. The Act also requires the Authority to publish a charter on advisory groups. The charter was first published in February 2011 and most recently updated in January 2017.

- The **Security and Reliability Council** was established in March 2011. It provides independent advice to the Authority on the performance of the electricity system and the system operator, and on reliability of supply issues.
- The **Innovation and Participation Advisory Group (IPAG)** and the **Market Development Advisory Group (MDAG)** are tasked with providing advice and recommendations to the Authority on the development of the Code and market facilitation measures. The IPAG focuses on issues specifically related to new technologies and business models, and consumer participation. The MDAG focuses on further evolving the 'machinery' of the electricity market.

From time to time, other advisory and technical groups have been established. Information about these groups is available in the Annual Report and on our website.

Information about the Security and Reliability Council, advisory groups and technical groups is available at ea.govt.nz/development/advisory-technical-groups.

SERVICE PROVIDERS

The **system operator** is responsible for the real-time operation of the power system, including scheduling and dispatching electricity, in a manner that avoids undue fluctuations in frequency and voltage on the transmission grid.⁹

The **reconciliation manager** allocates volumes of electricity to generators and purchasers. It uses metering information supplied by participants and calculates unaccounted for electricity.

The **pricing manager** calculates and publishes final prices, which are used by the clearing manager to calculate invoices.

The **clearing manager** invoices and settles physical electricity sales and purchases identified by the reconciliation manager, ancillary service payments

and any financial hedges required to be taken into account in the prudential calculation. It also maintains prudential security requirements.

The **FTR manager** runs regular auctions for financial transmission rights, which are a locational hedge product.¹⁰

INFORMATION SYSTEMS

The **wholesale information and trading system** is used to transfer information among participants, especially the uploading of bids and offers.

The **registry** is a database that identifies every customer point of electricity connection to a local or embedded network. It enables customer switching between traders and contains key information for the reconciliation process.

Publications and resources

- Electricity Authority website: ea.govt.nz
- Electricity Market Information website: emi.ea.govt.nz
- Interpretation of the Authority's statutory objective: ea.govt.nz/about-us/strategic-planning-and-reporting/foundation-documents
- Statement of Intent: ea.govt.nz/about-us/strategic-planning-and-reporting/statement-of-intent
- Statement of Performance Expectations: ea.govt.nz/about-us/strategic-planning-and-reporting/statement-of-performance-expectations
- Annual Report: ea.govt.nz/about-us/strategic-planning-and-reporting/annual-report
- Consultation charter: ea.govt.nz/about-us/strategic-planning-and-reporting/foundation-documents
- Charter about advisory groups: ea.govt.nz/about-us/strategic-planning-and-reporting/foundation-documents
- Electricity in New Zealand: ea.govt.nz/about-us/media-and-publications/electricity-nz.

⁵ NZX Limited is the operator of the New Zealand stock exchange.

⁶ Jade Software Corporation Limited is a specialist technology and research development organisation.

⁷ Energy Market Services is a commercial business group within Transpower.

⁸ The Electricity Market Information (EMI) website is available at emi.ea.govt.nz.

⁹ System operator responsibilities include giving instructions as to when and how much electricity to generate (i.e. it dispatches generation) so that injections of electricity into the system match uptake by electricity consumers at each moment in time. The system operator also publishes the generator dispatch schedules and is responsible for the operation of security of supply forecasting, monitoring and emergency management functions.

¹⁰ For more information on service provider contracts, which include detailed performance specifications, and reports, see ea.govt.nz/operations.



APPENDIX A

Statutory objective outcome measures

The following tables contain further details on the outcome measures we use to track progress against our statutory objective of Competition, Reliability and Efficiency. The headline outcome measure for each has been linked with related strategic ambitions earlier in this document. The tables also provide further details on the measures that roll up to the headline outcome measure.

Our performance measures take a holistic system-based approach. The outcome measures for our statutory objective also support some of the progress made towards our strategic ambitions. This is in addition to the impact measures set out earlier in the document.

Each outcome measure may relate to more than one strategic ambition. Where this occurs, we have identified the ambition that the outcome relates to most in **bold**.



Competition

OUTCOME MEASURE	MEASURE	SOURCE	LINKED STRATEGIC AMBITIONS	SOI PAGE
Improved participant perceptions of the competitiveness in electricity markets	Percentage of participants who agree with a range of statements on electricity market competitiveness: 1. Competition between electricity generators ensures wholesale market prices are set at an efficient level (i.e. there is a balance between the amount of generation and cost) 2. Competition between electricity generators ensures they build the most efficient power stations 3. Competition between retailers ensures that consumer prices only rise in line with costs to the electricity companies Percentage of participants who agree that prices in the following electricity markets reflect the outcomes expected in a workably competitive market: a) Retail market b) Spot market c) Hedge market, including ASX and OTC d) Ancillary service markets	Participant survey	Low-emissions energy	15
			Consumer centricity	17
			Trust and confidence	19
			Thriving competition	21
			Innovation flourishing	23
Improved consumer perceptions of the competitiveness of electricity markets	Percentage of consumers who agree with a range of statements on electricity market competitiveness: 1. I have a choice in my electricity provider 2. I can find a power company that meets my needs 3. Having a choice of power companies means I can find a fair price	Consumer survey	Consumer centricity	17
			Thriving competition	21
Overall improvement across a suite of statistics on electricity market competition	Overall improvement in the following statistics: <ul style="list-style-type: none"> ▪ Retail market concentration (HHI statistic) ▪ Retail market share (CR4 statistic) ▪ Net pivotal analysis ▪ Hedge market concentration (HHI statistic) ▪ Concentration in the ancillary services market (HHI of reserves statistic) ▪ Number of retailers' approaches to consumers with offers to induce switching (measured by survey) 	Authority data	Thriving competition	21



Reliability

OUTCOME MEASURE	MEASURE	SOURCE	LINKED STRATEGIC AMBITIONS	SOI PAGE
Improved participant perceptions on the efficiency of supply reliability	Percentage of participants who agree with a range of statements on electricity supply reliability: 1. There is a reliable supply of electricity each day 2. There is enough electricity to meet ongoing needs	Participant survey	Low-emissions energy Trust and confidence	15 19
Improved participant perceptions of the balance between the cost and reliability trade-offs	Percentage of participants who agree with a range of statements on the balance between the cost and reliability trade-offs: 1. The current electricity market arrangements ensure an appropriate balance between reliability and cost 2. Over the next 10 years, the electricity system will strike a balance between reliability and cost	Participant survey	Trust and confidence Innovation flourishing	19 23
Improved consumer perceptions of the reliability of electricity in New Zealand	Percentage of consumers who agree with a range of statements on electricity reliability: 1. It's rare to experience an unplanned power cut 2. If there is an unplanned power cut, it gets fixed quickly 3. There is enough electricity to keep New Zealand homes and business powered in the future	Consumer survey	Consumer centricity Trust and confidence	17 19
Overall improvement across a suite of statistics on efficient levels of reliable electricity supply	Overall improvement in the following statistics: <ul style="list-style-type: none"> Pricing in scarcity events reflects opportunity cost, as measured by case-by-case analysis Effective management of dry years or emergency events, as measured by case-by-case analysis Capacity and energy margins are within efficient bounds or are moving towards those bounds, as measured by the annual security assessment Investigation of reliability events does not identify systemic issues, as measured by case-by-case analysis 	Authority data	Low-emissions energy Consumer centricity Trust and confidence	15 17 19



Efficiency

OUTCOME MEASURE	MEASURE	SOURCE	LINKED STRATEGIC AMBITIONS	SOI PAGE
Improved participant perceptions of the efficiency in electricity markets and transmission and distribution arrangements	Percentage of participants who agree with a range of statements on the efficiency in electricity markets and transmission and distribution arrangements: <ol style="list-style-type: none"> 1. The New Zealand electricity market ensures electricity is generated efficiently 2. The New Zealand electricity market ensures electricity is transmitted efficiently 3. The New Zealand electricity market ensures electricity is distributed efficiently 4. New Zealand's wholesale electricity market efficiently coordinates electricity production and consumption 5. New Zealand's wholesale electricity market efficiently facilitates timely investment in the electricity system 6. New Zealand's hedge market efficiently coordinates electricity production and consumption 7. New Zealand's hedge market efficiently facilitates timely investment in the electricity system 8. Competition between electricity retailers promotes efficiency within retail operations 	Participant survey	Low-emissions energy	15
			Consumer centricity	17
			Trust and confidence	19
			Thriving competition	21
			Innovation flourishing	23
Improved consumer perceptions of the efficiency of electricity in New Zealand	Percentage of consumers who agree with a range of statements on the efficiency of electricity in New Zealand: <ol style="list-style-type: none"> 1. I can easily find and connect with an electricity provider 2. Prices on my electricity bill fairly represent the actual cost of my electricity use 	Consumer survey	Consumer centricity	17
			Trust and confidence	19
			Innovation flourishing	23
Overall improvement across a suite of statistics on electricity system and market efficiency	Overall improvement in the following statistics: <ul style="list-style-type: none"> ▪ Robust futures prices ▪ Dry year prices reflect storage levels, as assessed by case-by-case analysis ▪ Exceptional prices are justified by underlying fundamentals, as assessed by case-by-case analysis ▪ Reducing constrained-on compensation 	Authority data	Low-emissions energy	15
			Trust and confidence	19
			Thriving competition	21



APPENDIX B

Glossary and abbreviations

A detailed glossary is available at ea.govt.nz/glossary.

Act	Electricity Industry Act 2010.
Ancillary services	The system operator contracts individual participants to provide five services essential to maintaining the common quality of electricity supply. These ancillary services are black start, over-frequency reserve, frequency-keeping reserve, instantaneous reserve and voltage support.
Authority	Electricity Authority.
Black start	Some generators have the ability to black start, meaning they can restart their generation plant with no electrical input if the system has blacked out. Generators without this capability require power from the grid to restart their generating plant.
Capability	What an organisation needs in terms of access to leadership, people, culture, relationships, processes and technology, physical assets, and structures to efficiently deliver the goods and services required to achieve the results sought by the Crown entity, whether those results are set by reference to government policy or by statute.
Code	Electricity Industry Participation Code 2010.
Common quality	Common quality refers to those processes and technical requirements placed on asset owners and the system operator that impact on power system quality such as the Code requirements for system frequency management, system event management and system voltage management.
Consumer	Any person who is supplied with electricity other than for resupply.
CR4	Concentration ratio (CR) of the top four generation-retailer companies (gentailers). The CR measures the sum of the market shares for the largest retailers—a higher number indicates a more concentrated market. We chose CR4, the sum of the market shares for the top four parent retail companies, because the market started with four large gentailers and CR4 will help identify how the structure has changed. It should be noted that these four gentailers are not the dominant players in every region.
FTR	Financial transmission right.
HHI	Herfindahl-Hirschman Index. HHI is a measure of market concentration, and the relationship with competition occurs because less concentrated markets are likely to be more competitive. It is calculated as the sum of the squares of the market share of all participants.
Instantaneous reserves	Generation capacity and interruptible load that is made available to be used in the event of a sudden failure of a generating or transmission facility in order to maintain system frequency at 50 Hz. Fast instantaneous reserve is available within six seconds and must be able to operate for one minute. Sustained instantaneous reserve is available within 60 seconds and must be available for 15 minutes.
Market facilitation measures	Actions that the Authority can take short of amending the Code or recommending changes to regulations. This can include discussion with participants, education programmes, publication of guidelines and publication of model agreements.



Glossary continued

MBIE	Ministry of Business, Innovation and Employment. MBIE is the policy adviser to Ministers on energy matters. MBIE also acts as the monitor for the Minister of Energy and Resources regarding the Electricity Authority.
Participant	A person, or a person belonging to a class of persons, identified in section 7 of the Electricity Industry Act 2010 as being a participant in the electricity industry. This includes generators, Transpower, distributors, retailers, other lines owners, consumers directly connected to the national grid, buyers of electricity from the clearing manager and service providers.
Service providers	Parties contracted by the Authority to manage the electricity system (system operator) and market services, as described in Part 3 of the Code.

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