Relieving pressure to deliver regulatory reform at pace: Proposed levy-funded appropriations 2024/25

Consultation paper

19 December 2023

ELECTRICITY AUTHORITY
TE MANA HIKO

Executive summary

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

The Electricity Authority Te Mana Hiko (Authority) regulates the electricity system and markets. Our vision is for all consumers to have choices in accessing the energy they need now, and in the future, so New Zealand prospers.

Through our work we seek to ensure a reliable, efficient and competitive electricity industry for the long-term benefit of all consumers. We deliver our regulatory responsibilities to protect small consumers and support innovation, investment and continued development of electricity markets.

The electricity market has served consumers well and it provides a solid foundation for the future. But our context has changed, and the electricity system is undergoing transformation at an unprecedented scale. We are moving through the transition to an electrified and lower emissions economy. As the regulator, we are focused on ensuring the transition is as efficient and resilient as possible, while maintaining energy security, system adaptability and access to affordable electricity for all consumers.

Meeting expectations and enabling an electrified economy

Government, industry and consumer expectations of the regulator have changed. A modern regulator operates on behalf of the people it serves and in doing so, must engage well and often with regulated and interested parties, including consumers. Stakeholders have repeatedly told the Authority they want to see and hear more from us; they want increased transparency, more engagement and quicker regulatory reform. We have made some significant changes in the past year with existing resources, but the organisation is under pressure and unable to meet expectations without a shift in funding.

We need to strike a balance between responding quickly and decisively to immediate pressures while also being proactive and staying ahead of changes in the future. This requires active monitoring, insights and evidence-based decision making, as well as education and information to support awareness of and engagement in an increasingly diversified system.

We consider the electricity regulator must be sufficiently resourced, resilient and have a proactive, risk-based and systems-wide approach to regulation. A well-functioning electricity market is critical to the transition, encouraging new investment across our transmission and distribution networks. An unprecedented pipeline of potential generation projects is being pursued to meet future demand and there are encouraging signs of an uptake in demand response.

A predictable and stable regulatory framework will be required to enable the transformation that is underway, while making sure the power stays on and the public has confidence in the system and the regulator. More intermittent renewable generation and more active players in an increasingly complex system will drive innovation and shape the future electricity system. New technologies and business models will serve to empower the consumer.

Scaling up to catch up and keep up

Regulation needs to keep up with technological change and enable the consumer of the future. The Authority is committed to working across agencies, the sector and with consumer groups to enable rapid change and realise benefits. But we're struggling to keep up under our current resource constraints.

We have been funded for the electricity system of the past and we are at risk of regulation falling behind and becoming a handbrake on innovation and the transition to a net zero carbon future. The benefits of clean and less expensive electricity can only be realised with the enabler of regulatory change.

We need to change the way we do things so we can keep pace with the rate of change required and better serve all consumers. The pace of change is unprecedented. We no longer have the benefit of time or a steady environment in which to develop and implement incremental reform. This document sets out our proposal for funding that will enable the regulator to keep up and deliver regulatory reform at pace while ensuring our monitoring and compliance functions are operating at a high level to hold industry to account on behalf of consumers.

How much will it cost and who pays?

Before the 2023/24 financial year the appropriation for the Authority had not changed significantly since its establishment in 2010. The change in the Authority's operating funding from 2012 to 2023 represents a nominal increase of less than 1.5% per annum.

The Authority received an uplift in funding of $4.6 million in 2023/24.[1] Consideration of further investment was subject to the completion of an independent baseline review. The review was commissioned in late 2022 by our monitoring agency, the Ministry of Business, Innovation and Employment (MBIE) and was intended to provide assurance around the extent to which the Authority is adequately and appropriately resourced to respond to current and future challenges.

As part of this process, the Authority developed a business case to assess potential funding options. The business case considered four funding options summarised in the table below. Having assessed all these options, we consider 'Option 3 – enabling a consumer-focused transition' would best address the issues identified in the baseline review. However, we are acutely aware of the current fiscal environment and the pressure already on households and businesses.

We are therefore proposing to operate within a tight fiscal framework. Our operating appropriation for 2024/25 is based on 'Option 2 – relieving pressures'. This proposes a total annual increase of $14.2 million to the Authority's funding and takes the total proposed funding to $115 million for 2024/25. Of this increase, $7.6 million is for service provider costs and $6.6 million is for the Authority's operating costs (currently, the cost of third-party contracts accounts for about 70% of the Authority's appropriation).

[1] Around $1.5m has gone to service provider costs, with the remaining $3.1m going to core Authority's operations.

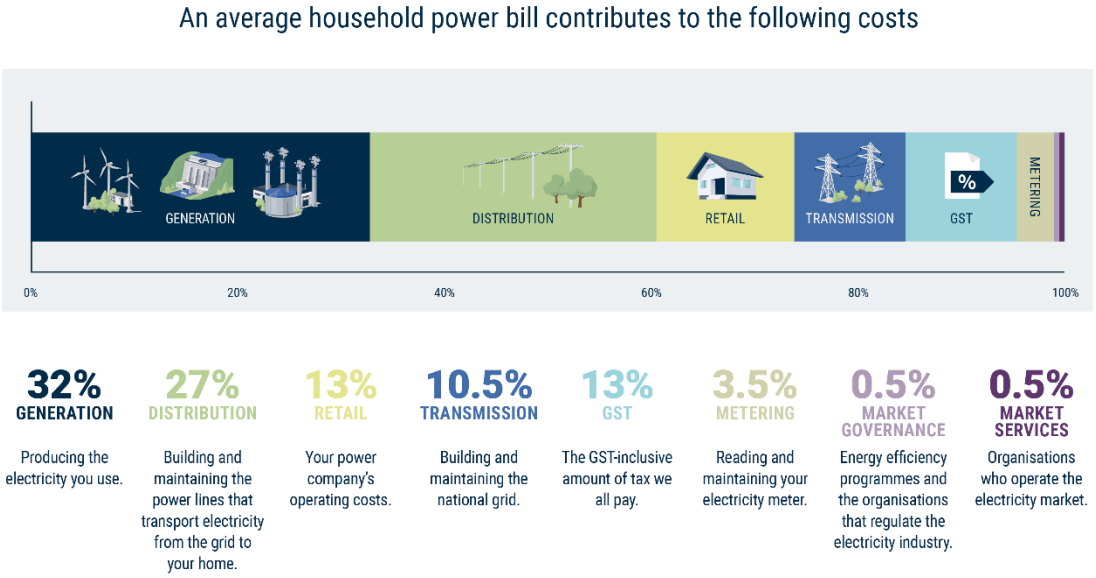
The cost to New Zealand households under our proposed level of funding is an increase of about $2.76 per year (about 23 cents a month) for the average household and about $16.32 more a year ($1.36 a month) for the average commercial entity.

This will take the total estimated annual levy cost to $23.29 for the average household (about $1.94 a month) and $138.40 for the average commercial entity (about $11.53 a month).

Figure 1 provides a breakdown of what contributes to an average household bill. The Electricity Authority levy is allocated across the market governance and market services portions of the bill.

This funding will enable us to address acute pressure points and keep up with the necessary changes to policy, rules and the Electricity Industry Participation Code (Code) required through the transition.

Figure 1: Breakdown of an average household power bill



**The numbers in this diagram are indicative and represent public information available at a point in time.*

Summary of the funding options

Funding options	Summary of options and intended impact
Option 1 – No increase in operational funding $108.4m total ***Increase of $7.6m on 2023/24 for service provider costs but no increase for operating costs***	Option 1 has no material changes to the current state and no change in funding for the Authority's operations. The increase of $7.6m is for service provider costs only.
Option 2 – Relieving pressures $115.0m total ***Increase of $14.2m on 2023/24 including $7.6m for service provider costs $6.6m is for operating costs***	Option 2 provides funding to address acute pressure points Under this option, the Authority is largely reactive but also able to keep pace with changes to policy, rules and the Code, necessitated by the transition and changing technology. Consumers and the industry can expect evidence-based, timely decision making on what matters most.
Option 3 – Enabling a consumer-focused transition $124.9m total ***Increase of $24.1m on 2023/24 including $7.6m is for service provider costs and $16.5m for operating costs***	Option 3 provides funding that enables the Authority to broaden its work programme and progress at a faster pace. Under this option, the Authority is an enabler of a consumer-focused transition; is more future-focused with a forward view of system and market requirements and a more proactive regulator.
Option 4 – Leading a consumer-focused transition $133.8m total ***Increase of $33.0m on 2023/24 including $7.6m for service provider costs and $25.4m for operating costs***	The funding under Option 4 enables a further expansion of the scope of activity but also changes in how the Authority leads rather than enables a consumer-focused transition and delivers a more orderly transition where the benefits and costs to consumers are respectively maximised and minimised

Details of each funding option is provided in Appendix C.

The requested additional funding is a necessary investment to support electricity consumers to reap the benefits of innovation and competition at least cost. It will make sure the Authority can keep up with the scale and pace of change required by the sector to keep the lights on. The proposed increase reflects the focus of our indicative work programme (included in Appendix A) on enabling the following outcomes to make sure all New Zealanders benefit.

(a) Consumers have access to a mix of renewable generation, storage, and load management technologies that benefits them and protects New Zealand's environment.

(b) An efficient and competitive market that delivers affordable electricity and enables consumers to make the most of their electricity use and have choices.

(c) A reliable and secure electricity supply that is resilient to shocks, giving consumers trust and confidence.

Relieving pressures to deliver better outcomes

The proposed increase reflects the Authority's commitment to a sustainable, affordable, secure and resilient electricity system for all consumers.

Under the proposed funding increase, the Authority will be in a position to meet increased service provider costs (for those providers who operate the electricity system and markets), and be better placed to make good progress towards mitigating risks to consumers and realising the full benefits of enabling new technologies and changes to market operations.

The Authority will have more capacity and capability to work early and often with regulated parties and consumer groups to identify and prioritise the issues that will make the most difference and enable an electrified economy.

We would note that, while we consider the increase detailed under Option 2 is the prudent approach, Option 3 would ensure the Authority was able to progress at a faster pace, as it would allow the organisation to maintain momentum on longer term strategic work while still managing immediate issues. Under Option 3, the Authority would have the resource to work with urgency with other agencies and organisations on a whole of system response to issues such as energy hardship, for which the Authority only has a few levers to help drive change.

For these reasons and pending the outcome of this consultation, there may be a case to seek a further increase when we consult on our levy for 2025/26.

Contents

1 Have your say

Purpose and timing of this consultation

1.1. The purpose of this paper is to consult with interested parties on the Authority's proposed levy-funded appropriations for the 2024/25 financial year (from 1 July 2024 to 30 June 2025).

1.2. Section 129 of the Electricity Industry Act 2010 (Act) requires the Authority to consult on our proposed appropriations each year before submitting a request for funding to the Minister for Energy.

1.3. The consultation period is from 19 December 2023 to 30 January 2024. Please deliver your submission in this timeframe. We will acknowledge receipt of all submissions.

1.4. Please contact the Authority (appropriations@ea.govt.nz or 04 460 8860) if you do not receive electronic acknowledgement of your submission within two business days.

How to make a submission

1.5. The Authority's preference is to receive submissions via our secure information provision portal.

1.6. Please include your name on your submission. If you are submitting on behalf of an organisation/group, include the name of the organisation/group and your position. Please contact the Authority (appropriations@ea.govt.nz or 04 460 8860) if you cannot send your submission electronically to discuss alternative arrangements.

Submissions will be published

1.7. The Authority intends to publish all submissions. If you consider the Authority should not publish any part of your submission, please:

(a) indicate which part should not be published,

(b) explain why you consider we should not publish that part, and

(c) provide a version of your submission the Authority can publish (if we agree not to publish your full submission).

1.8. If you indicate part of your submission should not be published, the Authority will discuss this with you before deciding whether to publish that part or not.

1.9. Please note all submissions received by the Authority, including any parts the Authority does not publish, can be requested under the Official Information Act 1982. This means the Authority would be required to release material not published unless good reason existed under the OIA to withhold it. The Authority would normally consult with you before releasing any material that you said should not be published.

2 Introduction

2.1. This consultation paper sets out, and seeks feedback on, the Authority's appropriations for 2024/25. These are the:

(a) Electricity Industry Governance and Market Operations appropriation

(b) Managing the Security of New Zealand's Electricity Supply appropriation

(c) Electricity Litigation Fund appropriation.

2.2. This consultation paper also provides an indicative work programme for 2024/25.

2.3. Your feedback will inform the Authority's advice to the Minister for Energy on the appropriate level of funding and levies for our work from July 2024 onwards.

The Authority regulates the electricity system and markets

2.4. The Authority is the independent Crown entity responsible for the governance and regulation of New Zealand's electricity industry.

2.5. We regulate the electricity industry, set the market rules, and conduct operational activities to ensure the electricity system and markets run effectively. We work to create a competitive, reliable and efficient electricity industry for the long-term benefit of consumers and New Zealand.

2.6. The objectives of the Authority::

(a) The main objective of the Authority is to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers.

(b) The additional objective of the Authority is to protect the interests of domestic consumers and small business consumers in relation to the supply of electricity to those consumers.[2]

2.7. The latter came into effect on 31 December 2022.

2.8. We operate in the wider government context and have regard to the Government's strategic priorities. Government's expectations of the Authority are communicated in the enduring letter of expectations for Crown entities and in the annual letter of expectations from the Minister for Energy.

The electricity industry is at the centre of New Zealand's electrification and energy resilience

2.9. Electricity systems across the world are facing rapid transformation – New Zealand's electricity system is no exception. The global climate change imperative and associated international shift to increasingly renewables-based generation combined with new and emerging technologies, digitisation and artificial intelligence have disrupted a previously stable industry in which change was incremental and largely predictable.

[2] The additional objective applies only to the Authority's activities in relation to the dealings of industry participants with domestic consumers and small business consumers.

2.10. New Zealand has committed to achieving net zero greenhouse gas emissions by 2050. Electrification of transport and process heat are critical to achieving our climate goals and puts our electricity industry in the driver's seat of an electrified New Zealand.

2.11. Transitioning to an electrified, low-emissions economy with higher levels of renewable electricity will create significant challenges for the operation of New Zealand's power system. The transition will also create opportunities to optimise the evolution of the power system and, ultimately, better serve consumers' long-term interests.

2.12. We will see more renewable electricity generation, increased use of distributed energy resources, more participants in the industry, as well as new ways to participate. For example, in *The Future is Electric*, a report commissioned by several industry participants, the preferred pathway to net zero requires, among other things, 1 million electric vehicles in 2030 and 4.3 million by 2050[3] and 0.5 GW of electric vehicle battery capacity flexibility in 2030, and 3.7 GW by 2050[4] (equivalent to nearly 4 Huntly power stations).

2.13. While the future is uncertain, these numbers provide an indication of the size of the changes required to transition to a net zero carbon future. These changes are and will continue to shift the dynamics of the electricity system including the functioning of electricity markets, which will require changes to the Electricity Industry Participation Code to remove barriers to their uptake.

2.14. The transition to an increasingly renewables-based system and electrified economy is well underway. As reported by the Market Development Advisory Group (MDAG), New Zealand's renewables generation share is projected to reach around 94% by 2025 compared to 82% on average over the five years to 2021.[5] The pace of change is increasing which means the future is arriving faster than previously expected. In MDAG's words, it is imperative that we prepare now for the transformative role electricity will play in our economy and day to day lives.[6]

2.15. Electricity demand has been reasonably stable over the last two decades, but electrification of transport and process heat will create a substantial increase in electricity demand. New Zealand's electricity demand is projected to be 68% higher in 2050 than 2019.[7]

2.16. *The Future is Electric* report estimates annual generation will need to increase by 79% by 2050, and annual capacity will need to increase by 163% by 2050. This increase in generation and capacity will be mostly met by solar, wind, and some geothermal and small hydro.

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3 Boston Consulting Group (October 2022), *The future is electric*, p.52

4 Ibid. p.127

5 Market Development Advisory Group (December 2022), *Price discovery in a renewables-based electricity system options paper*, p.15

6 Ibid. p.15

7 Transpower (March 2020), *Whakamana i Te Mauri Hiko – Empowering our energy future*, p.22

2.17. In addition to the need to build this generation, the distribution and transmission networks will also need to be upgraded to enable the additional generation and meet the increase in demand. There will be need for significant changes to the Electricity Industry Participation Code to support the additional sources of generation, and there needs to be regulatory certainty to attract and support the increased level of investment that will be needed – in both the national grid and in distribution networks.

Increased investment in networks will be required

2.18. Large transmission and distribution network investments will be required to enable and accommodate increasing electrification. For example, Transpower has recently released its first proposal for the regulatory control period covering 2025-30, which sets out up to $4.7 billion of spending which, if approved, would increase household bills by about $7 a month. *The Future is Electric* report estimates that in the 2020s and 2030s combined there will be $47 billion of distribution investment.[8] MDAG has also indicated the total expected investment will be between $27 and 37 billion by 2050 for generation and batteries.[9]

2.19. Technological change means more solar panels, electric vehicles and batteries will be connected, creating both new challenges and opportunities for distribution networks. These issues are exacerbated by the need to accommodate bi-directional power flows arising from the new technology and to address the system stability issues that will arise.

2.20. While there is uncertainty around the exact level of network investment that is needed over the coming decades as New Zealand transitions to a net zero carbon future, most reports on the topic agree the level of investment will be in the billions of dollars and a lot larger than the upgrades seen in recent decades.

2.21. The Authority has a key role to play in helping ensure the efficient level of network investment, for example through promoting cost-reflective network prices, which send efficient signals of the cost consequences of network usage and through supporting the uptake of non-network solutions which can reduce or defer the amount of network investment required. Improving the efficiency of network investment by even a small percentage, can have large benefits to consumers through lower bills than they would otherwise experience.

Enabling change at least cost to consumers

2.22. The Authority's vision for New Zealand is for all consumers to have choices in accessing the energy they need now, and in the future, so they and New Zealand prosper. That requires a sustainable, affordable, and secure and resilient electricity

[8] It is worth noting that these numbers include investment for other changes, such as enabling renewable generation and supporting DER uptake, however; a large portion of the estimated investment is to accommodate increasing electrification.

[9] Market Development Advisory Group (February 2022), *Price discovery under 100% renewable electricity supply issues discussion paper*, p.65

system that delivers the following outcomes that are grounded in the energy trilemma:

(a) Consumers have access to a mix of renewable generation, storage, and load management technologies that benefits them and protects New Zealand's environment.

(b) An efficient and competitive market delivers affordable electricity that enables consumers to make the most of their electricity use choices.

(c) The supply of electricity is reliable, secure and resilient to shocks, providing trust and confidence to consumers.

2.23. Innovation and new technologies are paving the way for a different consumer in the future. The future consumer will be increasingly connected, and autonomous. New business models will allow them to take more control over their electricity and expectations of providers will shift as consumers expect more and different services to meet their energy requirements. Energy will become more of a service dictated by consumer needs and behaviour rather than a relationship controlled by the provider.

Regulatory settings need to support the transition and unlock investment and productivity growth

2.24. Regulatory change is critical to enable and fully realise the benefits and unlock the opportunities of innovation and new technologies for the consumer of the future.

2.25. There is a wide range of issues and measures that need to be addressed to prepare for a low-emissions, renewables-based system. The Authority will need to carry out much of the development work required. We are deeply concerned that current levels of funding are not sufficient to enable the work required to be undertaken. As the regulator, we are at high risk of slowing down rather than enabling the transition. By implication the transition is at risk of becoming disorderly.

2.26. The Authority is not alone in this view. MDAG is on record as saying:

> *Reprioritisation alone is very unlikely to free up the level of resource needed to undertake the proposed work [as set out in MDAG's report]. It is therefore imperative that the resourcing for the Authority be reviewed to enable implementation of the work plan with urgency.* [10]

2.27. Sapere Research Group (Sapere), in its baseline review of the Authority, has also emphasised the transition to an electrified, low-emissions economy has consequential implications for market design and security arrangements.[11] As stated by Sapere:

> *It is clear the Authority is operating in a significantly different context to that for which it was created when it replaced the Electricity Commission. It is also operating in a significantly different environment in the last four or so years, for instance with the establishment of the Climate Change Commission and*

[10] Ibid. p.30

[11] Sapere (August 2023), Electricity Authority strategic baseline review 2022/23 final report, p.viii

release of first Emissions Reduction Plan, the unexpected outage at the Pohokura gas field in 2018, and more recently increases in UTS claims. Of particular focus are the challenges presented to the electricity sector in the transition to a low emissions economy.[12]

2.28. Currently, the Authority is making increasingly difficult trade-offs about where to focus its efforts. As the regulator, we need to invest time and resources in monitoring emerging issues and trends and preparing for what's around the corner. Being proactive and ready for change is essential for regulating through uncertainty and change. At the same time, the regulator must have capacity to respond to immediate and pressing issues that impact consumers in the short term.

2.29. Markets need to work well. Markets enable a diversity of suppliers to offer competing solutions to meet consumer demands and for consumers to choose the solution that best meets their needs. Better solutions should displace less efficient solutions now and in the future. Over time this should also drive investment decisions to deliver reliable electricity at least cost and support economic growth.

2.30. We also do not work in isolation. The electricity regulator is a critical part of an ecosystem of agencies and organisations dealing with systemic issues and external shocks. The Authority needs to work more across this ecosystem, including with industry and consumers, to identify the issues early, and deliver solutions and better outcomes for consumers. That takes time, capacity and expertise – all of which require investment in the Authority.

2.31. Regulatory settings need to be at their optimum to ensure New Zealand can meet the challenges, and take advantage of the opportunities, to support an electrified economy at the lowest possible cost to consumers.

A regulator funded for the past not the future

2.32. Before the 2023/24 financial year, the appropriation for the Authority had not changed significantly since its establishment in 2010.

2.33. The change in the Authority's operating funding from 2012 to 2023 represents a nominal increase of less than 1.5% per annum. Earlier funding increases were incremental in nature reflecting the relatively slow pace of change in the electricity system of the past.

2.34. The inflation impact of third-party contracts over the past four years was $3.1 million. This has directly reduced the available funding for the Authority's operations. The future impact of this is a further $6 million over the next five years.[13]

2.35. In October 2022, the Authority consulted on increases to our 2022/23 and 2023/24 appropriations. We also signalled an increase for 2024/25, which would be subject to the Authority taking part in an independent baseline review of our operations.

2.36. Following proposals submitted by the Authority to the responsible Minister, MBIE was tasked with commissioning a baseline review of the Authority to, among other

[12] Ibid. p.15

[13] Ibid. p.77

things, provide advice on the Authority's funding needs. MBIE commissioned Sapere to undertake the baseline review.

2.37. Ahead of that review being completed, in February 2023 the responsible Minister approved an additional $4.6m for 2023/24 and outyears for the Authority.[14] The baseline review has been completed and found the Authority is facing cost and other funding pressures.

> *In essence, the Authority's funding has been suitable for historically flat demand and incremental changes, but recent events require an expansion of the Authority's scope of work*.[15]

Proposed appropriations

2.38. The Crown funds the Authority through appropriations of public money. The Crown recovers the cost of this funding, up to the level of actual expenditure incurred, through a levy on electricity industry participants. The proposed appropriations for 2024/25 are outlined in Appendix B.

2.39. Levies are charged to industry participants in accordance with the Electricity Industry (Levy of Industry Participants) Regulations 2010. These regulations are made on the recommendation of the responsible Minister and are administered by MBIE.

2.40. Each year we prepare an appropriations request for the Minister, outlining the costs of performing our functions and exercising our powers and duties under the Act.

2.41. The appropriations request covers the three appropriations available to the Authority. The *Electricity Industry Governance and Market Operations* appropriation is our main operating appropriation. Most of this appropriation is used to fund third-party service providers who operate the electricity system and markets, with the remainder used to fund the Authority's operations. We are seeking an increase to this appropriation.

2.42. We also have two appropriations contingent in nature. We do not incur expenditure against these appropriations as part of our normal operations, but they ensure we can respond quickly and effectively should specific events or situations arise.

(a) *Managing the Security of New Zealand's Electricity Supply* appropriation

(b) The *Electricity Litigation Fund* appropriation

2.43. We are seeking to maintain these two appropriations at their current funding levels.

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[14] This was $2.7m lower than the funding levels on which the Authority consulted. Not all of this funding has gone towards the Authority's operations. A large portion has gone to third-party contracts. Of the $4.6m, around $1.5m has gone to third-party contracts, with the remaining $3.1m going to core Authority's operations. The impact of third-party contracts is discussed in more detail in the 'third-party contracts' section.

[15] Sapere (2023), p.6

A two-phase consultation process to request an increase in funding

Phase one

2.44. In mid-2022 we determined an uplift in funding was required to meet our regulatory objectives and enable the transition to an electrified, low-emissions economy. In September 2022 the responsible Minister wrote to the Authority supporting a two-phased consultation on a proposed levy increase.

2.45. Phase one involved consulting on an increase for 2022/23 and 2023/24 in October 2022. Following this consultation, in February 2023, the Minister approved an increase of $0.5 million for 2023/23 and $4.6 million for 2023/24.[16]

2.46. The $4.6 million increase provided for in the Authority's 2023/24 levy-funded appropriation has gone some way to alleviating some significant pressure points facing the Authority. This includes consumer price index related increases to service provider contracts as well as funds to resource critical areas, such as the future security and resilience work programme; operational policy; retail networks, monitoring and data analysis; and compliance.

Phase two

2.47. Phase two involves consulting on a refinement of the previously advised increase. The proposed increase is informed by a strategic baseline review of the Authority commissioned by MBIE and undertaken by Sapere.

2.48. The baseline review sought to answer the following questions:

(a) How well positioned is the Authority to deliver on its role, strategy, and government priorities?

(b) How well is the Authority performing (efficiency of resource use, and value add/quality of outputs delivered)?

(c) What cost pressures does the Authority face over the next four years, and do they align with its strategy and priorities?

(d) What are the options to manage within different funding paths?

2.49. Question (d) is the funding component of the review. Sapere did not answer this question. Sapere considered estimating the funding levels associated with different options would have required significant assumptions in the time available. MBIE and the Authority agreed the Authority would undertake the work.

2.50. The Authority worked with PwC to develop a business case that answered the funding component of the baseline review. The business case was submitted to MBIE and Sapere for their response. The finalised business case and baseline review have informed this consultation paper.

[16] It is important to note that not all this funding has gone towards the Authority's operations. A large portion has gone to third-party contracts. Of the $4.6m, around $1.5m has gone to third-party contracts, with the remaining $3.1m going to core Authority's operations.

2.51. Findings from the baseline review highlight the cost, service and other funding pressures facing the Authority:

(a) *[The Authority] faces a quite different environment than when initially established, with significant medium-term dynamics that will have implications for the Authority (posing cost pressures as well as opportunities) and pose risks to reliability.*

(b) *In essence, the Authority's funding has been suitable for historically flat demand and incremental changes, but recent events require an expansion of the Authority's scope of work.*

(c) *It is clear the Authority is operating in a significantly different context to that for which it was created when it replaced the Electricity Commission. It is also operating in a significantly different environment in the last four or so years, for instance with the establishment of the Climate Change Commission and release of first Emissions Reduction Plan, the unexpected outage at the Pohokura gas field in 2018, and more recently increases in UTS claims. Of particular focus are the challenges presented to the electricity sector in the transition to a low emissions economy.*[17]

[17] Sapere (2023), pp. vi, 6, 16

3 Electricity Industry Governance and Market Operations appropriation

About this appropriation

3.1. The *Electricity Industry Governance and Market Operations* appropriation is our main operational appropriation.

3.2. This appropriation is intended to achieve the promotion of competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers; and to achieve protection of domestic and small business consumers' interests in relation to the supply of electricity to those consumers.

3.3. This appropriation is limited to formulating, monitoring and enforcing compliance with the regulations and Code governing the electricity industry and other outputs in accordance with the statutory functions under the Act; and delivery of core electricity system and market operation functions, carried out under service provider contracts.

Our functions under this appropriation

3.4. This appropriation funds our operations, and the operation of the electricity system and market, enabling us to exercise our five main operating functions under the Act:

(a) Promote market development: we promote development of the electricity markets by making amendments to the Code and through market facilitation measures.

(b) Monitor, inform and educate; we monitor market behaviour, make data, information and tools available, and educate consumers and participants.

(c) Operate the electricity system and markets: we are responsible for the day-to-day operation of the electricity system and markets, delivered through contracts with service providers.

(d) Enforce compliance: we monitor, investigate and enforce compliance with the Act, relevant regulations, and the Code.

(e) Protect the interests of small consumers: we undertake actions to protect the interests of domestic and small business consumers in relation to the electricity supply to those consumers.

Third-party service providers

3.5. The appropriation for the Authority covers two clearly defined areas – operations of the Authority and third-party contracts for a range of services that enable the functioning of the electricity system and markets.

3.6. Currently, the cost of third-party contracts amounts to about $70 million and accounts for about 70% of the Authority's appropriation.

3.7. The Authority has contracts with several third-party providers:

(a) ***The system operator*** (a part of Transpower) coordinates electricity supply and demand in real time in a manner that avoids fluctuations in frequency and disruption of supply.

(b) ***NZX*** operates the wholesale information and trading system that supports the 24/7 buying and selling of spot market electricity. NZX also performs a reconciliation manager role for calculating and allocating unaccounted for electricity as well as a clearing manager role (settling monthly, all trades on the spot and financial transmission rights markets).

(c) ***Jade*** acts as registry manager overseeing the electricity registry, a national database of every point of connection on local and embedded networks to which a consumer or embedded generator is connected.

(d) ***Energy Market Services*** provides services for Financial Transmission Rights.

(e) ***Bold Trading*** provides commercial market making services.

(f) ***Consumer NZ*** provides the Powerswitch service.

3.8. Under current arrangements, the funding available to the Authority is declining due to increases in third-party service provider contracts. The increases are due to:

(a) The electricity system becoming more complex, resulting in third parties needing to do more and requiring more funding to do so, and

(b) Third-party contracts being inflation adjusted. Third parties are paid more as inflation increases, and this currently comes out of funding for the Authority's core operations. This has a significant impact given third-party costs make up approximately 70% of the overall appropriation.[18]

3.9. The inflation impact of third-party contracts over the past four years was $3.1m, resulting in a reduction in the available funding for the Authority's operations.

3.10. Based on current information, an additional $7.6 million will be required in 2024/25 (compared to 2023/24) to fund our third-party service providers.

3.11. The additional costs included in this consultation include the inflation adjustment for third-party contracts for 2024/25 and known contractual increases based on ongoing discussions and procurement processes.

[18] For example, of the $4.6m funding increase for the 2022/23 year, around $1.5m has gone to service provider costs, with the remaining $3.1m going to core Authority's operations.

Proposed funding: relieving pressure to deliver timely and fit for purpose regulation.

3.12. Following the baseline review and additional analysis of funding options, the Authority is seeking a permanent baseline increase of $14.2 million for 2024/25, bringing the total appropriation to $115.0 million. The uplift in funding is sought in two areas:

(a) **Authority operating expenditure ($6.6 million):** the Authority is seeking an uplift in resourcing to relieve key pressure points and support a consumer-focused transition to an electrified low-emissions economy.

(b) **Third-party service provider expenditure ($7.6 million):** Third-party service providers, such as the system operator, are fundamental to the ongoing operation of the electricity system and markets. The Authority is seeking additional funding for the service provider contracts due to:

i. the electricity system becoming more complex, resulting in third parties needing to do more and requiring more funding to do so, and

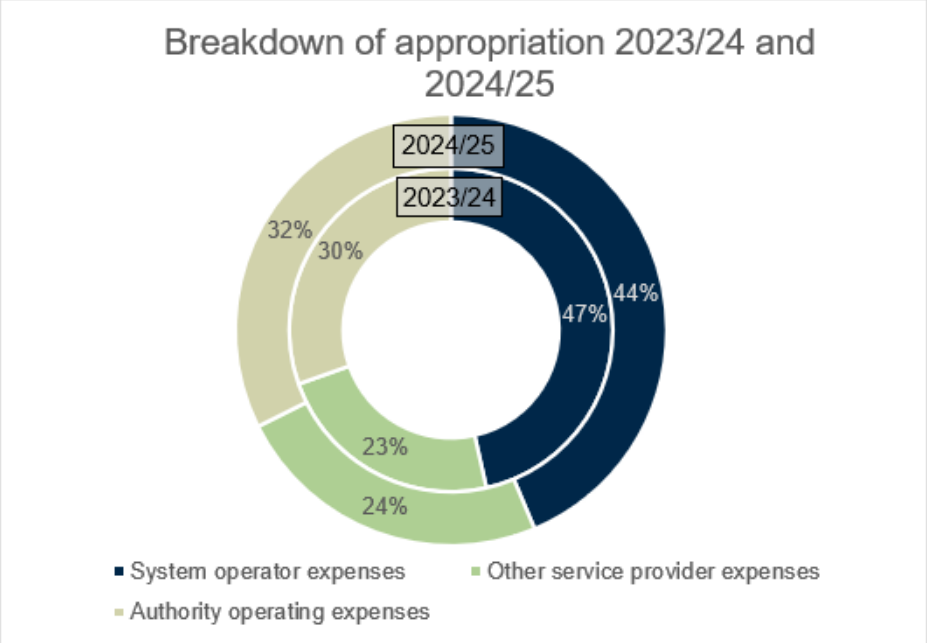
ii. third-party contracts being inflation adjusted, so third parties are paid more as inflation increases which currently comes from the funding for the Authority's core operations.

3.13. The Authority is conscious of the current fiscal environment and the pressure on households and businesses. The requested additional funding is a necessary investment to avoid the potential impact of a slow, disorderly transition to a net zero carbon future. The minimal increase to annual bills will support better outcomes and access to affordable electricity for all consumers now and in the future.

3.14. Our proposed funding for 2024/25 enables us to make good progress towards realising the full economic and productivity benefits of enabling new technologies and changes to market operations. This includes an increase in core business and supporting functions, across areas including policy, compliance and enforcement, and contract management. We will be able to address acute pressure points and keep up with the necessary changes to policy, rules and the Code required through the transition.

3.15. The proposed funding is the next step towards enabling a consumer-focused transition to an electrified, low-emissions economy. It will address the key pressures facing the Authority and industry more broadly. It will also begin to lay the groundwork for future funding, with Option 3 of the business case as a medium-term funding option.

Figure 2: Breakdown of the Electricity Industry Governance and Market Operations appropriation 2023/24 ($100.8 million) and proposed 2024/25 ($115.0 million)



Delivering against an additional statutory objective

3.16. Under the Electricity Industry Amendment Act 2022, the Authority received an additional statutory objective to protect the interests of domestic consumers and small business consumers in relation to the supply of electricity to those consumers.

3.17. Increasing the focus on small, and especially vulnerable, consumers is not something specific to the Authority; it is an expectation common across many other regulators and government agencies. Protecting the interests of the many small and vulnerable consumers is important and can be resource intensive as:

(a) people (and businesses) in these groups can be hard to reach

(b) the issues they face and concerns they have are not well understood and are not homogenous across these groups.

(c) within these groups there are likely to be many who have little or no understanding of the fact that as consumers, they have choices, let alone know how to exercise those choices

(d) language and the traditional style of regulator engagement can be a real barrier for consumers in these groups.

3.18. Giving effect to this additional objective in a way that drives a step change for these consumers requires us to better understand the issues facing the supply of electricity to domestic and small business consumers now and in the future and what action will have the most impact. The additional objective is not intended to supplant our main objective of ensuring a competitive, reliable and efficient electricity industry, nor is it intended to be absolute. Consumers are referenced in both our main objective and in our additional objectives.

3.19. Under current funding levels we do not have sufficient capacity to quickly and comprehensively carry out all the work we could do to respond to this additional remit.

Value for money

3.20. The Electricity Authority has been changing the way it works and delivers over the past 12 months. The value proposition, reflected in this funding proposal, builds on this work and has three main components all of which continue to strengthen the delivery on our statutory objectives:

(a) Increased effectiveness – greater contribution to our statutory objectives and strategic ambitions and, ultimately, delivery of more benefits for consumers

(b) Driving efficiency – including addressing areas for improvement identified by Sapere

(c) Reducing risks - minimise the risk of a disorderly transition and adverse/unwanted consequences (if relying on current funding).

3.21. As a modern regulator, we need to have the capacity and capability to anticipate rather than just react to issues in the market. Additional funding will help us to respond more quickly to emerging issues and respond in ways that support an efficient energy transition and keep the power on.

3.22. Under the proposed funding, we will catch-up and keep up. The benefits of this shift include:

(a) greater regulatory certainty and stability which will help unlock investment, innovation, and productivity growth.

(b) reducing the costs that would otherwise result from having to deal with unanticipated problems.

(c) help avoid situations where the Authority finds itself responding to problems in a hurry and without the appropriate level of analysis and consideration. This includes reducing the risk that the Authority is unduly led by solutions promoted by particular interest groups, rather than solutions that will improve outcomes for all consumers.

3.23. The Authority is one of a number of organisations that plays a role in regulating the electricity sector. Other agencies including MBIE, the Commerce Commission, the Energy Efficiency Conservation Authority and the Gas Industry Company all play key roles in relation to energy regulation.

3.24. For the regulatory system to work well, the Authority needs to play its part well, otherwise the whole system loses effectiveness. There are opportunities for the Authority to step up and take more of a leadership role, to ensure the whole system is working well and agencies with regulatory responsibilities are focused on shared purpose and outcomes.

3.25. As part of any bid for additional funding and ensuring value for the levy payer, it is important to demonstrate that the organisation is efficient and economical in its use of existing resources. This has been a key area of focus over the past 12 months

and was identified as a priority in the recent baseline review, which identified several areas for improving cost efficiency:

(a) focusing more on our core functions as a regulator and minimising/focusing any spending on boundary issues with other regulators/agencies

(b) possible efficiencies in engagement, operating decision-making processes including harnessing opportunities to redesign processes so that we are more agile and innovative and embody continuous improvement

(c) reducing turnover and improving technical capabilities

(d) leveraging technology and data analytics.

3.26. The Authority is already working to address these, but upfront investment is required to deliver improvements in most instances. For example, changes to operating procedures incurs cost ahead of benefits being realised; and leveraging technology and data analytics requires investment in tools, systems and people.

3.27. The following outlines areas where the Authority is creating efficiencies, and how, in some instances, additional resource would magnify the efficiency gains:

(a) ***Strengthening the relationship with other agencies and regulators.*** This helps reduce overlaps and gaps in work programmes and identify areas for leveraging existing or planned programmes of work. Strengthening and maintaining relationships to achieve consistency and an energy system approach requires time, good data and resource.

(b) ***Preventative compliance work***, such as breach trend analysis to guide compliance interventions and education. This would result in efficiency savings from having fewer resource-intensive Code breach compliance cases. Additional resource would enable more preventative compliance work (ie, being able to undertake breach trend analysis to guide further proactive compliance interventions and education), which would result in efficiency savings from having fewer resource-intensive Code breach compliance cases (as well as fewer Code breaches which can negatively impact consumers).

(c) ***Reducing turnover and improving technical capabilities***, including targeting development opportunities to all individuals. As a regulator in a technical industry the Authority requires staff who have a strong understanding of the industry that they regulate. Market research shows that employees tend to stay longer with organisations that invest in learning and development.

(d) ***Service provider contracts*** – we review our service provider contracts on an ongoing basis to identify opportunities to improve value-for-money. Additional resourcing would ensure that we are better equipped to extract more value from our service arrangement contracts.

(e) ***Reviewing our advisory groups*** to determine if there are more efficient options to achieve the desired outcomes. Additional resource would enable the Authority to better service existing advisory group(s) and / or set up another advisory group which would also result in efficiency gains for the

Authority through early engagement, identification of key issues and collective problem solving.

Reducing risk

3.28. The Authority needs to be able to support the transition and adequately manage the risks and opportunities facing the electricity system over the coming decades. In many ways, reducing this risk is the flip side of some of the effectiveness gains described above.

3.29. Developments such as intermittent generation and distributed energy resources (DER) pose challenges for the operation of the electricity system, but both are important aspects of the transition to a net zero carbon future. Unless regulatory settings adapt quickly to these developments, there will be increased risks to security of supply and, in the case of DER, risks of inefficient investment (which means a risk of prices being higher than they need to be). A good example is investment in physical infrastructure (lines) that could be deferred or avoided by greater use of DER.

3.30. There are two other aspects of risk in the case for change, which are focused on the functioning of, and trust in, the Authority. The first of these is resilience. Under current funding settings, it is a real challenge for the Authority to keep pace with business-as-usual. When an unplanned event or issue arises, the organisation lacks resilience to deal with that event/issue without serious disruption to business as usual. Unexpected events require the Authority to reprioritise resources and important, but not urgent, matters are further delayed.

3.31. The second aspect is reputational risk. There is a gap between stakeholder expectations of the Authority and their perceptions of what we are achieving. That gap needs to be addressed and preferably reversed. Maintaining trust and confidence in the regulator is crucial to support investor confidence, among other things. Stakeholder perceptions are also discussed in section 4.53.

What the proposed funding is expected to deliver

3.32. The Authority considered four funding options as part of the business case. The proposed funding increase will enable us to address acute pressure points and deliver fit for purpose regulation in a timely manner.

3.33. The proposed funding will ensure regulation minimises the cost of the transition on consumers and ensures consumers are aware of changes underway and know how to participate in regulatory decision-making.

3.34. A more proactive approach to regulation will help unlock economic benefits throughout the transition, such as through DER and real-time pricing, and enable an electrified future in which consumers have access to a secure, reliable and affordable electricity supply.

The Authority will be better placed to mitigate risks across the electricity sector

3.35. By adding the right capability and capacity across the organisation, the proposed funding enables the Authority to mitigate risks, by tackling both low-hanging fruit as well as some larger, more resource intensive challenges. It enables us to:

(a) Increase the organisation's resilience and ability to handle the unexpected without significant disruption to business as usual, which reduces the risk of regulatory failure and upholds the reputation of the Authority as being able to deliver outcomes to the sector.

(b) Increase the compliance function to enable more timely investigations and deliver education activities.

(c) Continue to prioritise the Future Security and Resilience work programme, in the lead up to the transition.

(d) Make progress with stakeholder engagement, including with other regulators, the sector and with government agencies that are working on broader energy, climate, and resiliency issues.

(e) Provide regulation that does not create an accumulation of regulatory requirements but is future focused and fit-for-purpose. There is a need to catch up with requests for Code changes and identify unnecessary requirements. Operating with an out-of-date Code gives rise to a suite of issues that will be a hindrance (and costly) in the future.

(f) Reduces the Authority's need for external consultants as it allows:

i. building of internal capability

ii. being ahead and less reactive of issues

iii. the ability to respond to the unexpected.

We will deliver our regulatory obligations

3.36. Without additional funding the Authority is at real risk of not providing the necessary regulatory support during the transition.

3.37. The proposed funding enables the Authority to better prepare for the transition in a way that will more successfully deliver on our regulatory obligations. Part of the Authority's role is to facilitate the transition to an electrified economy because an efficient transition requires a competitive and reliable industry guided by a regulatory framework that delivers on behalf of all consumers and the country.

3.38. It is critical to harness the momentum, enable new and emerging technologies, and maintain the drive towards increasing electrification. An increase in resourcing is key to harnessing this, and there is a key opportunity to mitigate the risk of momentum dissipating.

3.39. Additional resource will support a shift towards a more strategic approach, ensuring the right work is effectively prioritised to realise benefits in the short, medium and long term.

Consumer benefits exceed the potential impacts

3.40. The proposed increase enables the Authority to keep pace with the significant changes underway in the electricity industry. We will be able to deliver more quickly and work more closely with the sector to ensure the work underway is the most pressing and will bring benefit to all consumers while electrifying the economy and building energy resilience for the future.

3.41. Consumers and the industry will be able to expect more timely decision making on what matters most now and in the medium to long term. Consumers and the industry will have more of a voice in regulatory decision making through more engagement. There will be significant progress towards realising the full benefits of enabling new technologies and changes to market operations.

Estimated costs

3.42. The proposed increase of $14.2 will result in an estimated $2.76 incremental annual increase to the average household (of which $1.45 is for service provider contracts and $1.31 is for Authority operations) and a $16.32 annual increase to the average commercial entity (of which $8.73 is for service provider contracts, and $7.59 for Authority operations).[19] The current estimated annual levy cost for the average household is $20.53 per annum. The annual levy costs for an average commercial entity are estimated to be $122.08 per annum.

3.43. The Authority acknowledges the current pressure on households and businesses and the current fiscal environment and that this funding request is being presented in. However, the proposed funding will help avoid creating long-term service delivery or programme integrity issues; making sure we're able to meet our regulatory responsibilities and continue to deliver government priorities while reducing our reliance on consultants.

3.44. The Authority is confident the minimal increase to annual household bills will support better outcomes and access to affordable electricity for all consumers now and in the future.

Estimated benefits

3.45. An increase in funding will allow the Authority to progress work that will support realising benefits in a number of areas. For example, Sapere estimates that if DER, were to realise their potential in full, the benefits from 2021 to 2050 would be $6.9 billion in present terms. Examples of the benefits from DER reaching its full potential are lower electricity costs, and reduced network investment costs, which will flow through to lower electricity bills than otherwise. Additionally, the benefits of real-time pricing are estimated to be between $3.8 million and $19.1 million – without additional resourcing the upper end of these benefits will not be realised.

3.46. With respect to distribution, there is a large amount of forecasted network investment with $20 billion in each of the next three decades projected. If the work of the Authority leads to even small improvements in the efficiency of this investment, the benefits will be large. More access to information and the ability to share it with the network will help promote competition, which in turn will drive innovation, more choices and lower costs for consumers in the future.

3.47. There are efficiency gains to be had with respect to timeliness and correct prioritisation of work, considering short-, medium- and long-term benefits. We will be working alongside industry and interested parties to progress and deliver regulatory reform as quickly as possible. Well-considered and inclusive project

[19] Estimates are based on average annual consumption, actual levy costs to consumers will vary depending on electricity usage.

management and implementation will reduce the need for reactive and urgent fixes down the line.

3.48. With the proposed funding we can develop in-house capability across many areas reducing external spend required to fill capacity and capability gaps, ultimately delivering better value for money.

A permanent uplift is needed to give certainty through an unknown and uncertain time

3.49. The Authority considers a permanent increase, as opposed to a temporary increase, is needed to manage the ongoing risks and opportunities associated with the transition. Once the transition ends, then the level of funding the Authority requires may be less and at that point the levy can be reduced.

3.50. However, at this stage that end date is unclear and the Authority requires funding certainty to deliver on the major regulatory reform required to enable an electrified New Zealand.

3.51. The change underway has implications across the electricity system which will require a significant response, including

(a) timely updates of the rules to enable innovation and new technologies

(b) the evolution of electricity markets to encourage investment in the right place at the right time

(c) an uplift in monitoring and data analysis to ensure evidence-based decision making

(d) a collective response to system wide issues to reduce overlaps and increase efficiencies

(e) engagement with consumers, industry and agencies to ensure practical solutions and to unlock the benefits for consumers of the future.

3.52. With varying lead times to consider, at the outset, this transition lends itself to a complex work programme that will challenge the capacity and capability of current resource levels.

3.53. We have been doing what we can with the resources we have and trade-offs have been made – for example deferring the Code change programme (which was recently reinstated in 2023), delaying our compliance education programme, and progressing workstreams more slowly than desired (such as distribution network regulatory reform and additional Code reform under the future security and resilience multi-year work programme).

3.54. We are currently functioning in a highly reactive way of working with resource levels stretched across the organisation. We are under pressure, our resources are squeezed and the consequences are serious.

Meeting consumer, industry and government expectations

3.55. Maintaining trust and confidence of stakeholders in the regulatory regime is fundamental. Expectations of regulators have changed over the past few years with consumers, industry and government wanting increasing transparency and

engagement. We know we are already struggling to keep up with these expectations.

3.56. Key themes from our 2022 stakeholder perception survey included a request for:

(a) greater regulatory certainty – less complexity, more transparency

(b) a strong future focus – agile and adapt to the evolving environment

(c) greater collaboration with industry – purposeful/meaningful engagement

(d) increased pragmatism – real world as opposed to overly theoretical

(e) more capacity and capability – amount and experience of resources.

3.57. We will do the best we can with the resources we have. With current funding, we have had to make some difficult decisions on existing activities, with the potential to pause and delay some key activities. Our monitoring activities are constrained as is our ability to develop timely evidence-based policy advice.

3.58. A key area of concern is maintaining the existing rules within the Code to ensure they are fit for purpose while working on new rules to accommodate change. Maintenance is critical but is constrained by existing resources.

3.59. A modern regulator is expected to engage more effectively with many and different voices in the decision-making process. Within current resource constraints, the work required to ensure purposeful engagement will impact on timeframes. Our recent consultation on Consumer Care Guidelines highlighted the extent of consumers interest in engaging directly with us. That is just one aspect of our work that is of interest. Under current resources we will struggle to engage in a timely manner with consumers on all matters that affect them.

3.60. Government expectations have also increased over the past few years. The 2023/24 Minister's letter of expectations outlined the expectation of the Authority through the transition:

> *The Authority will play an important role in this transition, enabling New Zealand consumers to benefit from a competitive, reliable, and efficient electricity industry. This role requires the Authority to be agile in considering and fostering innovative approaches to the issues of tomorrow as well as today, such as multiple trading relationships and virtual power plants.*[20]

3.61. In addition to the sector specific expectations, Crown entities are expected to:

(a) support a unified, value-based government for all New Zealanders

(b) support future-focused Māori Crown relations

(c) contribute to improving wellbeing.

3.62. Increasing maturity within these areas will reduce exposure to risk, both with regards to security, reputation, and maintaining stakeholder confidence.

[20] Minister of Energy and Resources (April 2023), *Letter of Expectations for the Electricity Authority 2023/24,* p.2

Funding options: The trade-off between Options 2 and 3

3.63. The Authority considered four funding options as part of the business case submitted during the baseline review process. Each of the four options assessed as part of the business case carries different implications for effectiveness, efficiency and risk. Appendix C has a table that summarises the assessment and presents the cost associated with each option.

3.64. We seriously considered Option 3 of the business case for our proposed funding, because it would allow the Authority to effectively enable a consumer-focused transition that:

(a) allows the Authority to make a much more effective contribution to its statutory objectives and deliver on its strategic ambitions

(b) delivers benefits to consumers well in excess of costs

(c) reduces the risks of the transition to a net zero carbon future.

3.65. However, we are acutely aware of the current fiscal environment and the pressure already on households and businesses. For that reason, we are seeking to relieve pressures for the next financial year and instead are proposing 'Option 2 – relieving pressure'. This funding will enable us to address acute pressure points and keep up with the necessary changes to policy, rules and the Code required through the transition. The additional cost to consumers of the proposed option (Option 2) is minimal:

(a) An extra $0.23 per month to the average household electricity bill.

(b) About $1.36 per month for the average commercial entity.

3.66. The proposed funding for 2024/25 is a step toward what the Authority needs to fully enable a consumer-focused transition to an electrified, low-emissions economy. In preparing this consultation paper, we have considered the trade-offs between our funding needs and the cost to New Zealand households and businesses.

3.67. We need to balance increases in costs to electricity consumers in the short term with the investment required to protect those consumers from unnecessary price shocks in the medium and long term, enable them to reap the benefits of innovation and competition, and ensure they receive a reliable power supply. This balance means that there will be trade-offs in what the Authority can and cannot deliver.

3.68. Timeliness will improve under the proposed funding, but there is still a risk of progress being slower than stakeholders would like.

3.69. The proposed funding enables the Authority to make a stronger contribution to the achievement of its statutory objectives than is possible under the current 2023/24 funding. For example, with the proposed funding the Authority would make more progress with, among other initiatives:

(a) progressing the implementation of appropriate recommendations in the MDAG report relating to the operation of wholesale markets, which makes up part of the wholesale markets work programme

(b) accelerating some aspects of the work on future security and resilience

(c) changing regulatory settings for the distribution sector to unlock the potential of new technologies.

3.70. These initiatives are important contributors to helping to optimise productivity and investment, ensure the competitiveness of markets and security of supply and, importantly, a net zero carbon future.

3.71. There are, however, some inherent limitations, gaps and risks under the proposed funding. The Authority would continue to be largely reactive. Issues are regularly brought to the Authority's attention by and industry participants (eg, the need for changes to the Code). Even though the proposed funding means we would be better placed to try and keep pace with these issues (compared to the status quo), we will continue to be in a situation where we are just keeping up rather than getting ahead of issues. Unexpected events will also put a strain on the Authority and will require reprioritisation if and when they occur.

Indicative work programme

3.72. For 2024/25 we have reintroduced an indicative work programme (refer Appendix A). This allows the Authority to be more transparent about the work we intend to progress and responds to requests for more transparency on our work programme.

3.73. The indicative work programme builds on priority work in our Annual Corporate Plan 2023/24 and maps our activities against the outcomes we are working towards. The Authority's vision and intended outcomes are outlined in the diagram below.

3.74. With increased capacity and capability, we will be able to progress existing activities at greater speed – so that benefits, including those for consumers, are realised sooner. We will also be able to identify and initiate additional work to stay aligned with the increasing complexity and dynamics of the evolving markets.

3.75. The indicative work programme is in an early stage of development. It has been included to give an insight into key deliverables and timing. We welcome feedback on the work programme and on the outcomes detailed below.

Electricity Authority vision and intended outcomes[21]

3.76. Our vision and intended outcomes are described on the following pages.

[21] The vision and intended outcomes supports the Authority to continue to meet its legislative responsibilities. It is not intended to replace, restate or supplement those responsibilities. We refer in particular to our functions and objectives, which are set out in the Electricity Industry Act 2010

Our vision and intended outcomes

WHY?

Our vision

Consumers have choices in accessing the energy they need now, and in the future, to ensure they and New Zealand prosper

WHAT?

Outcomes

The Electricity Authority seeks to achieve a sustainable, accessible, secure and resilient electricity system that contributes to productivity, growth and wellbeing

Sustainable

Consumers can access a mix of renewable generation, storage and technologies. They can control and reduce their energy use, reducing costs and improving our environment

Accessible

Consumers have simple, stable access to affordable electricity. They can choose their energy supplier from a competitive and efficient market

Secure and resilient

Consumers have trust and confidence in their electricity supply. It's reliable, secure and resilient to shocks

Long-term outcomes

- Widespread electrification of transportation, industrial use and households
- A diverse range of renewable electricity solutions (generation and storage) are integrated into the power system

- Consumers and communities benefit from their investment in generation, storage and managing their demand and the load on networks
- Consumers and communities benefit from a range of efficient and cost-effective electricity solutions

- Consumers and communities are empowered to generate and share electricity, without compromising security and supply
- Electricity infrastructure is fit for purpose and can bounce back from shocks (including cyber and natural disasters)

Medium-term outcomes

- Regulation enables widespread uptake of new renewable technologies to benefit consumers
- Investors have access to tools and information to support a range of renewable investments
- Regulation promotes innovation and supports the economy of the future

- Consumers and their agents can use data to make smart electricity use choices and are rewarded for doing so
- Tools and products are available to effectively manage the price volatility from increased renewable generation
- Widespread understanding and uptake of flexibility markets – reducing the cost of the transition

- The transmission and distribution system are coordinated to ensure security of supply over hours, days, months and years
- Rural, vulnerable and isolated communities are protected against risks to security of supply
- Different parts of New Zealand manage the risk and opportunities of the transition in ways that reflect their regional circumstances

Short-term outcomes

- Investors, innovators and operators have confidence in the electricity market to enable new renewable investments
- Regulation enables early adoption of new technologies, including electricity generation, storage and load management technologies
- Transition related challenges are identified in advance and are addressed

- Effective competition and market transparency delivers efficient prices for consumers
- Accurate market price signals encourage investment in electricity generation
- Consumers start to benefit from accurate real time and secure electricity data
- Consumers have access to the energy they need and have a voice

- Emerging risks to the power system are understood and plans are in place to mitigate these risks
- Large energy users have confidence and tools to support electrical security of supply
- The transmission and distribution system accommodates a large increase in renewable generation

How we work to achieve our vision and outcomes

Our vision

Consumers have choices in accessing the energy they need now, and in the future, to ensure they and New Zealand prosper

Outcomes

We aim to achieve a sustainable, accessible, secure and resilient electricity system by carrying out our regulatory functions, engaging and collaborating to build trust and confidence in the system and in the Authority, to improve long-term outcomes for consumers

Sustainable | **Accessible** | **Secure and resilient**

Our regulatory functions

as New Zealand's electricity regulator, under the Electricity Industry Act 2010

1. Promote market development

We propose amendments to the Electricity Industry Participation Code to deliver better outcomes for consumers today and in the future

2. Monitor, inform and educate

We monitor market behaviour and make data, information and tools available to help improve understanding of the electricity markets by consumers and industry participants

3. Operate the electricity system

We're responsible for the day-to-day operation of the electricity system and markets through contracted service providers

4. Enforce compliance

We monitor, investigate and enforce compliance with the Electricity Industry Act, its Regulations and the Electricity Industry Participation Code to create a fair and competitive market

5. Protect consumers

We develop measures to protect the interests of domestic and small business consumers in relation to the supply of electricity to those consumers.

We engage & collaborate

with agencies, industry and consumers to perform our regulatory functions

4 Managing the Security of New Zealand's Electricity Supply appropriation

About this appropriation

4.1. This appropriation is intended to achieve enhanced security of supply in the electricity system during periods of emerging or actual security situations.

4.2. It is limited to the management by the system operator (Transpower) of actual or emerging emergency events relating to the security of New Zealand's electricity supply.

Our functions under this appropriation

4.3. The system operator is responsible for ongoing security monitoring and emergency management.[22] The system operator's security management functions include preparing the emergency management policy, which is incorporated into the Code by reference following our review and approval. The policy sets out steps the system operator will take, and encourage industry participants to undertake, during an extended emergency.

4.4. Our primary role in respect to security of electricity supply is to ensure the Code promotes an efficient level of supply reliability. This includes specifying the functions of the system operator, how the functions are to be performed, and to set requirements for transparency and performance.

4.5. We also monitor system operator performance. This work is covered under the promoting market development and operating the electricity system and markets functions respectively of the *Electricity Industry Governance and Market Operations* appropriation.

4.6. Our role in respect to this appropriation is limited to addressing requests from the system operator to use these funds. Our approval of any request is subject to an agreed process and criteria. The process requires the system operator to provide evidence there is an actual or emerging security event, and to describe the actions it intends to take using the funds and how it will monitor the use of these funds. Agreeing this information in advance can help enable the Authority to assess the effectiveness of the actions and the funding during and after the event.

4.7. The system operator can request funding from this appropriation to:

(a) increase monitoring and management responsibilities in the event of an emerging or actual security situation

(b) plan and run an official conservation campaign.

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[22] Section 8(2) of the Electricity Industry Act 2010 states that as well as acting as system operator for the electricity industry, the system operator must (a) provide information, and short-to medium-term forecasting on all aspects of security of supply; and (b) manage supply emergencies.
Information about the system operator's security management role is available on its website at https://www.transpower.co.nz/system-operator

4.8. The system operator would seek our approval for funding from this appropriation on a case-by-case basis if it considered increased monitoring or security management actions to be justified. However, the system operator can, acting on a 'good faith' basis, incur up to $0.300 million of costs in this area without prior approval if it is not reasonably practicable to seek that approval.

4.9. *Managing the Security of New Zealand's Electricity Supply* is a multi-year appropriation for the period 2022/23 to 2026/27. Expenses under this appropriation can only be incurred by the system operator. The Authority itself cannot incur expenses under this appropriation.

Proposed appropriation funding

4.10. This appropriation is contingent in nature and will not be drawn on in the normal course of events. As is the case with our other appropriations, levies are only collected up to the level of actual expenditure incurred.

4.11. In the Government's Budget 2022, a new security management appropriation for the period 1 July 2022 to 30 June 2027 was approved. No expenditure has been incurred against this appropriation to date.

4.12. We propose to maintain the *Managing the Security of New Zealand's Electricity Supply* appropriation at the current level of funding of $6.0 million over five years.

5 Electricity Litigation Fund appropriation

About this appropriation

5.1. This appropriation is intended to achieve assurance the Authority can participate in litigation effectively and without delay. It is limited to meeting the cost of litigation activity undertaken by the Authority arising from it carrying out its functions under the Act.

Our functions under this appropriation

5.2. Our functions under this appropriation include defending judicial review and appeal cases taken against us and taking enforcement action against participants under our compliance function.

Proposed appropriation funding

5.3. This appropriation is contingent in nature, and we will only use it if certain events or situations arise. As in previous years, it is difficult to estimate the likely level and timing of litigation.

5.4. We propose to maintain the *Electricity Litigation Fund* at its current level of funding of $1.500 million in 2024/25.

6 Consultation questions

Submitter	

Questions	Comments
Q.1 Do you support the Authority's proposal for a permanent baseline increase to its *Electricity Industry Governance and Market Operations* appropriation of $14.2 million for 2024/25, bringing the total appropriation to $115.0 million?	
Q.2 Do you support the Authority's proposal for maintaining the contingent appropriation for *Managing the Security of New Zealand's Electricity Supply* at its current level of $6.0 million over five years?	
Q.3 Do you support the Authority's proposal for maintaining the contingent appropriation for the *Electricity Litigation Fund* for 2024/25 and outyears at $1.5 million?	
Q.4 Do you have any comments on the Authority's proposed funding 2024/25?	
Q.5 Do you have any comments on the Authority's vision and intended outcomes?	
Q.6 Do you have any comments on the Authority's indicative work programme for 2024/25?	

Appendix A: Indicative work programme

2024/25 Indicative work programme

The purpose of this indicative work programme is to inform stakeholders about what work the Electricity Authority intends to undertake with its levy funding for 2024/25. We welcome feedback on this work programme via our information provision portal.

The Electricity Authority's work programme is set out under our five strategic ambitions:

1. **Low-emissions energy**
2. **Thriving competition**
3. **Innovation flourishing**
4. **Trust and confidence**
5. **Consumer centricity**

All our planned activities contribute to more than one strategic ambition, but each activity has been categorised under the strategic ambition it most contributes to.

Our strategic ambitions were developed with the sector as part of our 2020 strategy refresh. They help guide and prioritise our work to ensure our activities focus on contributing to the Authority's statutory objectives and purpose.

To provide clear intervention logic, each activity explains the:

- **Macro outcome(s) the activity contributes to**
- **Main outcome(s) of the activity**
- **Rationale for the activity –** why it's important and the problem/opportunity it's addressing
- **Activity's action(s) –** what work will be completed in 2024/25.

Note, the activities in this work programme are not exhaustive and subject to change following feedback, further planning and budget confirmation.

The work programme will be finalised in our Annual Corporate Plan in June 2024.

Macro-outcome(s) the activity supports	Main activity outcomes	Activity area 2024/25	Activity rationale	2024/25 Activity action(s)
Strategic ambition: Low-emissions energy *We are focused on unlocking the potential for more renewable generation. We work hard maintaining, developing and implementing market rules that give investors confidence and signal where additional generation is required. We need to promote a stable investment environment with robust roles 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.*				
• **Sustainable** • **Secure and resilient** • **Accessible**	• The transmission and distribution system accommodates a large increase in renewable generation • Regulation enables widespread uptake of new renewable technologies to benefit consumers • Consumers and communities benefit from their investment in generation, storage and load management	**Future security and resilience work programme** Ensuring New Zealand's power system remains stable, secure and resilient to shocks as it evolves over the coming decades.	Electrifying New Zealand and transitioning to net zero will require a material increase in renewables and distributed energy resource (DER), presenting new challenges to the operation of the electricity market and security of electricity supply. The future security and resilience work programme is focused on how to ensure the electricity system remains secure and resilient in the coming decades.	• Progress review and amendments required to the Part 8 common quality obligations of the Code to ensure relevance for new technology, including identification of the standards new technology needs to support the reliability of the power system. • Accelerate activities that focus on leveraging new technology to enhance ancillary services. • Key issues and options to address identified following consultation on the discussion paper considering NZ's current state of system operations and the challenges that could evolve, published at the beginning of calendar year 2024.
• **Sustainable** • **Secure and resilient**	• Regulation enables early adoption of new technologies, including electricity generation, storage and load management technologies	**Distributed generation connection** Promoting efficient investment in distributed generation.	Promoting efficient levels of investment in new technology, such as DER, will help ensure a competitive, reliable and efficient electricity industry for the benefit of consumers.	Implementing options to address connection and capital contribution issues, and work to ensure the Code supports the more efficient connection of distributed generation and large capacity load.
• **Sustainable** • **Secure and resilient**	• Transition related challenges are identified in advance and addressed • The transmission and distribution are coordinated to ensure security of supply over hours, days, months and years	**Review of forecasting arrangements for intermittent generators** Improving the accuracy of forecasts to provide certainty for generation and consumption decisions.	Intermittent generation forecasts are often inaccurate and unreliable until close to real time, which makes it challenging to balance supply and demand. Intermittent generators have few incentives to forecast accurately as there is little correlation between forecasting accuracy and revenue earnt in the spot market.	• Implementing preferred option for improved forecasting arrangements if not complete by June 2024, and monitoring the option thereafter. • Investigate options to address peak management issues due to variable renewable generation. • Progress supporting the integration of solar and wind generation and other forms of generation and manage associated risks around intermittency.

Indicative work programme: Low-emissions energy

Macro-outcome(s) the activity supports	Main activity outcomes	Activity area 2024/25	Activity rationale	2024/25 Activity action(s)
Strategic ambition: Low-emissions energy (continued) *We are focused on unlocking the potential for more renewable generation. We work hard maintaining, developing and implementing market rules that give investors confidence and signal where additional generation is required. We need to promote a stable investment environment with robust roles 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.*				
• **Sustainable** • **Accessible**	• Investors, innovators and operators have confidence in the electricity market to enable new renewable investments • Accurate market price signals encourage investment in electricity generation	**Distribution pricing reform and scorecards** Improving the efficiency of distribution pricing structures across New Zealand.	Efficient distribution pricing supports: • Reduced network upgrade and expansion costs • More choice and flexibility for consumers • Consumers to make prudent technology investment decisions	• Options papers and potentially Authority decisions on high-priority issues for distribution pricing reform. • Exploring solutions to emerging distribution pricing issues; for example: Accelerated policy work to establish frameworks within which flexibility services, driven by forecasts and price signals, can make decisions about when to supply DER; and addressing issues with distribution network capacity allocation.
• **Sustainable** • **Accessible**	• Investors, innovators and operators have confidence in the electricity market to enable new renewable investments • Accurate market price signals encourage investment in electricity generation	**Transmission price signals** Improving the efficiency of transmission pricing to send better signals to consumers about the cost of using the grid and promote more efficient investment.	Improving transmission pricing signals (and also the settlement residual allocation methodology (SRAM)): • Encourages more efficient use of the grid • Supports the right investments being made at the right time and in the right places • Over time, leads to relatively lower electricity prices for consumers	• Begin implementing improvements in availability of behind-the-meter data. • Further amendments to correct issues in the transmission pricing methodology (TPM). • Improve transparency of cost allocation in the TPM. Monitor and assess: • Whether the TPM is working as intended, including are transmission charges being passed through as per distributor guidance. • Are SRAM payments being passed through as intended (assessment of full year 1 after introducing requirement). • Monitor/share information of new embedded load for purpose of Transpower calculating residual charges. • If in December 2023 there are changes to Part 4 (as signalled in June draft decision) to index the RAB, there may be consequential changes to be made during FY2025 (if not implemented during FY2024).

Indicative work programme: Thriving competition

Macro-outcome(s) the activity supports	Main activity outcomes	Activity area 2024/25	Activity rationale	2024/25 Activity action(s)
Strategic ambition: Thriving competition *We encourage participation and reinforce 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 risks and provide consumers value for money through a growing range of innovative products, services, and opportunities to participate.*				
• **Sustainable** • **Secure and resilient** • **Accessible**	• Regulation enables early adoption of new technologies, including electricity generation, storage and load management technologies • Consumers start to benefit from accurate real time and secure electricity data • Widespread understanding and uptake of flexibility markets – reducing the cost of the transition • Regulation enables widespread uptake of new renewable technologies to benefit consumers • Different parts of New Zealand manage the risk and opportunities of the transition in ways that reflect their regional circumstances • Consumers and communities benefit from their investment in generation, storage and load management	**Distribution networks regulatory reform** Improving competition and innovation on distribution networks to support a low-emissions economy.	As NZ transitions to net zero, electrification will create a substantial increase in electricity demand which distribution networks will need to meet. Technological change means more solar panels, electric vehicles and batteries will be connected, creating both new challenges and opportunities for distribution networks.	Continue the delivery of the recently announced distribution sector regulatory reform work programme, including consultation and Code changes where required. This involves: • Progressing access and availability of data for EDBs and flexibility traders to unlock the potential of DER, improve visibility of the low voltage network, and improve network management. • Developing Code amendments to enable MEPs to contract directly with distributors and flexibility traders about the supply of ICP data. • Producing guidance on the threshold for extending the arms-length rules. • Consulting on bringing flexibility providers into the Code to improve visibility and coordination between participants • Producing guidelines on the conditional Code exemption process to support industry trials and regulatory sandboxes. • Investigating the barriers to the efficient connection of large-scale load applications, focused on public EV chargers and industrials looking to decarbonise, and considering whether a mirror Part 6 for load might be a viable solution.
• **Sustainable** • **Accessible**	• Transition related challenges are identified in advance and addressed • Effective competition and market transparency delivers efficient prices for consumers • Tools and products are available to effectively manage the price volatility from increased renewable generation	**Managing the transition** Supporting the wholesale electricity market to develop through the transition, including addressing recommendations from recent reviews to ensure competition in electricity markets while the system transitions to low-emissions energy.	This workstream prioritises a range of activities that will support the wholesale electricity market through the transition, including addressing recommendations from recent reviews to, among other things, ensuring competition in electricity markets.	• Addressing changes to policy settings to ensure the efficient operation of the wholesale electricity market under a renewables-based electricity supply, including progressing the implementation of appropriate Market Development Advisory Group recommendations from their final report (due December 2023) to support the transition. The Authority will aim to have begun the implementation of MDAG's recommendations by Q2 2024.
• **Sustainable** • **Accessible**	• Transition related challenges are identified in advance and addressed • Effective competition and market transparency delivers efficient prices for consumers	**Retail competition monitoring** Monitoring electricity retailers for competition and conduct.	Increased monitoring of retail market conduct to ensure outcomes for consumers are being met.	• Active monitoring, collection and analysis to support assessment of whether markets are performing as they should.
• **Sustainable** • **Accessible**	• Regulation enables early adoption of new technologies, including electricity generation, storage and load management technologies • Consumers start to benefit from accurate real time and secure electricity data • Regulation promotes innovation and supports the economy of the future	**Promote demand-side responses** Enabling growth of intermittent generation and realising the benefits of real-time pricing (RTP).	This workstream supports increased uptake of RTP and investigates ways to further improve and deliver benefits for consumers.	• Monitor and expand the dispatch notification and dispatchable demand participation regimes to ensure help flexibility service offerings can realise the full value of their investment. • Begin (if not already done so) investigating the sub-30-minute settlement option to further realise, incentivise and bring forward the benefits of demand response and DER.

Indicative work programme: Innovation flourishing

Macro-outcome(s) the activity supports	Main activity outcomes	Activity area 2024/25	Activity rationale	2024/25 Activity action(s)
Strategic ambition: Innovation flourishing *We 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.*				
• **Sustainable** • **Secure and resilient**	• Regulation enables early adoption of new technologies, including electricity generation, storage and load management technologies • Emerging risks to the power system are understood and plans are in place to mitigate these risks	**Ancillary services review** Enabling greater uptake of new technologies to support dynamic management of the power system.	Increases in intermittent generation will put greater strain on the dynamic management of the power system, it is critical that ancillary service arrangements best support power system operation.	• Publish consultation and decision on the need for a standby ancillary service. • Begin review of cost allocation to reflect changing power system conditions as we transition to a low-carbon energy system. • Begin review system operator Principal Performance Obligations (PPO) as they relate to procurement of ancillary services.
• **Secure and resilient** • **Accessible**	• Emerging risks to the power system are understood and plans are in place to mitigate these risks	**Extended reserves implementation** Supporting increased flexibility and resilience in the electricity system.	Reviewing how participants provide extended reserves in the North Island using AUFLS in order to deliver a more flexible and resilient electricity system that reduces the likelihood of national power cuts.	• Continue to monitor North Island EDBs' transition to the 4-block AUFLS scheme. • Progress on transition in alignment with Transpower and EDB plans while maintaining system security. Transition planned to be complete June 2025.
• **Sustainable** • **Secure and resilient** • **Accessible**	• Large energy users have confidence and tools to support electrical security of supply • Regulation promotes innovation and supports the economy of the future	**Hedge market disclosure obligations** Ensuring data disclosure supports evidence-based policy decisions.	Improving the hedge disclosure data will support more effective monitoring of the over-the-counter part of the contract market. This is consistent with the increased importance of this market and the Authority's ongoing work developing an industry-focused code of conduct for this market.	• Continuous monitoring of the over the counter (OTC) market to ensure effective market performance and providing regular insights on the OTC contracts to facilitate participants' risk management decisions. • Progress developing a comprehensive database on the OTC contracts in terms of price, volume and shape, and reliable insights regarding future prices and available type of contracts for smaller participants to help with their risk management strategy and negotiations.
• **Sustainable** • **Secure and resilient** • **Accessible**	• Regulation enables early adoption of new technologies, including electricity generation, storage and load management technologies • Emerging risks to the power system are understood and plans are in place to mitigate these risks	**Managing peak winter electricity demand** Improving the reliability of New Zealand's electricity supply by ensuring there is enough electricity at times of increased demand.	Since mid-2021 there has been an increase in the number of trading periods where the available electricity supply is tight, relative to the expected demand and normal reserve requirements. A key reason for this is the increased role of intermittent generation and the growing cost of gas, coal and carbon emissions. This workstream looks at how to better manage residual supply risk in periods of peak demand.	• Further enhancements to address long term options for managing peak demand periods. This will involve consulting on and implementing recommendations for continuation and enhancements to the Winter 2023 initiatives.

Indicative work programme: Trust and confidence

Macro-outcome(s) the activity supports	Main activity outcomes	Activity area 2024/25	Activity rationale	2024/25 Activity action(s)
Strategic ambition: Trust and confidence *We seek to actively build trust and confidence in the industry and regulation through greater transparency, understanding and improved behaviours. 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*				
• **Sustainable** • **Secure and resilient** • **Accessible**	• Transition related challenges are identified in advance and addressed • Effective competition and market transparency delivers efficient prices for consumers	**Increased monitoring of market activities and outcomes** Proactively monitoring market activities to ensure the market is appropriately responding to challenges.	Industry and market monitoring is one of our statutory functions and directly contributes to our statutory objectives by helping ensure interventions are timely and fit-for-purpose which leads to better outcomes for consumers.	• Increased monitoring of market outcomes to meet the pace of change in electricity markets. • Monitoring activities are more closely integrated with policy decisions to support a robust empirical basis for regulatory change.
• **Accessible** • **Secure and resilient**	• Consumers have access to the energy they need and have a voice	**Consumer care guidelines reform** Continue the review of the Consumer Care guidelines, consulting and implementing changes.	This activity undertakes steps to ensure small consumer interests, in their direct dealings with industry participants, are protected where necessary.	• Implementing the results of consultation on updating and strengthening the Consumer Care Guidelines released in September 2023. Decisions made regarding any changes and implementation under way in early 2024.
• **Accessible** • **Secure and resilient**	• Consumers have access to the energy they need and have a voice	**Consumer care reform** Considering issues outside the Guidelines which could ensue that consumers' interests when dealing with retailers are protected.	This activity undertakes steps to ensure small consumer interests, in their direct dealings with industry participants, are protected where necessary.	• Consultation on and then subsequently implementation (if necessary) of further potential protections for consumers outside of what the Consumer Care Guidelines currently cover.
• **Sustainable** • **Secure and resilient** • **Accessible**	• Effective competition and market transparency delivers efficient prices for consumers • Investors, innovators and operators have confidence in the electricity market to enable new renewable investments	**Increasing regulatory compliance** Ensuring confidence in the Authority's role as regulator, through education, monitoring, intervention, and enforcement.	Ensuring compliance helps create a level playing field for all participants, which supports competition and innovation.	• Progressing implementation of compliance education programme aimed at promoting the right outcomes and behaviors. • Demonstrated improvements in the timeliness of dealing with Code breach notifications. • Review of the audit regime for compliance outcomes.
• **Sustainable** • **Secure and resilient** • **Accessible**	• Regulation enables early adoption of new technologies, including electricity generation, storage and load management technologies • Regulation promotes innovation and supports the economy of the future	**Code review programme** Code review programmes address various themes or issues that arise in the Code.	There is currently a backlog of minor and technical changes to the Code that creates inefficiencies and costs to industry participants.	• Complete the next regular Code maintenance omnibus of Code changes. • Continue the programme of proactively rewriting sections of the Code, that potentially includes reviewing the stress testing regime, use of reconciliation profiles, multiple traders, notifications for unplanned outages, expanding the electricity registry to include more information on DER and flexibility services, updating statistical sampling processes for certification and inspection of metering.

Indicative work programme: Consumer centricity

Macro-outcome(s) the activity supports	Main activity outcomes	Activity area 2024/25	Activity rationale	2024/25 Activity action(s)
Strategic ambition: Consumer centricity *We create long-term benefits 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.*				
• **Accessible** • **Secure and resilient**	• The risk of Medically Dependent consumers (MDCs) being unidentified and potentially suffering an adverse medical event will be significantly reduced.	**Medically dependent consumers** Improving the processes for identifying MDCs.	This workstream addresses the very specific risk that some consumers may suffer extreme medical events, including death, if their electricity supply is cut off.	Improving the processes for identifying MDCs, which will involve working with Te Whatu Ora, MBIE, and ERANZ.
• **Sustainable** • **Secure and resilient** • **Accessible**	• Transition related challenges are identified in advance and addressed	**Data transparency, insights and automation** Continuously improving the availability of data and information to deliver sophisticated and transparent insights in a timely manner.	Continuously improving the availability of data and information to deliver sophisticated and transparent insights in a timely manner that supports better decision-making which leads to better outcomes for consumers.	• Comprehensive data strategy refresh, including cybersecurity, and working with other government agencies (eg, Stats NZ, IDI). • Increased insights made available on EMI, and EMI refresh (which will be the first major upgrade since 2013).
• **Sustainable** • **Secure and resilient** • **Accessible**	• Investors, innovators and operators have confidence in the electricity market to enable new renewable investments	**Commercial contract management** Ongoing focus on our major contracts, including management of our market operation service providers.	These contracts and the services delivered under them are fundamental to the efficient functioning of the electricity system and markets.	• Renegotiate the SOSPA, with more active management. • Ensuring SO demand-side levers are fully utilised.

Appendix B: Summary of appropriations

	Appropriation 2022/23 ($m)	Appropriation 2023/24 ($m)	Proposed appropriation 2024/25 + outyears ($m)
Operational appropriation			
System operator expenses	42.3	47.1	49.8
Other service provider expenses*	24.2	23.4	28.3
Authority operating expenses	30.2	30.3	36.9
Total Electricity Industry Governance and Market Operations appropriation	**96.7****	**100.8*****	**115.0******
Contingent appropriations			
Managing the Security of New Zealand's Electricity Supply (1 July 2022 to 30 June 2027)	**6.0 over five years**	**6.0 over five years**	**6.0 over five years**
Electricity Litigation Fund	**1.5**	**1.5**	**1.5**

* Includes commercial market making as a third-party service provider contract.

**We received an increase of $0.5 million in 2022/23 to cover work already underway that could not be met by re-prioritised resources.

***We received an increase of $4.6 million in 2023/24 to fund key workstreams and major regulatory reform from the Government's Emissions Reduction Plan, work arising from the review of the events of 9 August 2021, the Electricity Industry Amendment Act 2022, work required to improve wholesale market competition, and Authority support functions (includes prior year increase).

****We are seeking an increase of $14.2 million for 2024/25 and outyears to fund the above initiatives, provide the Authority with the capacity and capability to enable a consumer-focused transition to a net zero carbon future and ensure we are able to execute our regulatory role for the benefit of consumers.

Appendix C: Summary of Electricity Industry Governance and Market Operations funding options

The Authority has been funded for an electricity industry of the past and now needs investment to catch up, keep up and stay ahead of a changing electricity system. Regulation is at real risk of falling well behind the electricity sector and in doing so, delaying progress and potentially putting a handbrake on the transition to a net zero carbon future. We're seeking an uplift to our baseline funding to enable an efficient transition to a net zero carbon future at least cost to consumers.

The Authority developed a business a case to assess potential funding options. Having assessed all these options, we consider *'Option 3 – enabling a consumer-focused transition'* will offer the most value to industry and consumers over the short, medium and long term.

However, we are acutely aware of the current fiscal environment and the pressure already on households and businesses. We are therefore proposing to operate within a tight fiscal framework and the appropriations proposed for 2024/25 are based on *Option 2 – relieving pressures*. This funding will enable us to address acute pressure points and keep up with the necessary changes to policy, rules and the Code required through the transition. The additional cost to consumers of the proposed option (Option 2) is minimal:

- An extra $0.23 per month to the average household electricity bill.
- About $1.36 per month for the average commercial entity.

While we consider the increase detailed under Option 2 is the prudent approach for now, Option 3 would give the funding step up necessary for the Authority to broaden its work programme and progress at a faster pace. Under Option 3, the Authority is an enabler of a consumer-focused transition and a future-focused, proactive regulator who stays ahead of emerging issues in energy landscapes across the globe. For those reasons and pending the outcome of this consultation, there may be a case to seek a further increase when we consult on our levy for 2025/26.

The table below summarises the four funding options considered for our *Electricity Industry Governance and Market Operations* appropriation for 2024/25.

	Option 1 **No increase in operational funding**	**Option 2 *(proposed option)*** **Relieving pressure**	**Option 3 *(highest-value option)*** **Enabling a consumer-focused transition**	**Option 4** **Leading a consumer-focused transition**
Increase in service provider costs from 2023/24 ($m)	$7.6m *service provider increase only*	$7.6m *service provider increase only*	$7.6m *service provider increase only*	$7.6m *service provider increase only*
Increase in Authority operating costs ($m)	$0.0m	$6.6m	$16.5m	$25.4m
Total appropriation funding ($m)	$108.4m *increase of $7.6m*	$115.0m *increase of $14.2m*	$124.9m *increase of $24.1m*	$133.8m *increase of $33.0m*
Estimated <u>additional</u> annual levy to consumers	$1.45 ($0.12 per month) for the average household $8.73 ($0.73 per month) for the average commercial entity	$2.76 ($0.23 per month) for the average household $16.32 ($1.36 per month) for the average commercial entity	$4.82 ($0.40 per month) for the average household $27.59 ($2.30 per month) for the average commercial entity	$6.64 ($0.55 per month) for the average household $37.75 ($3.15 per month) for the average commercial entity
Estimated <u>total</u> annual levy to consumers	$21.98 ($1.83 per month) for the average household $130.81 ($10.90 per month) for the average commercial entity	$23.29 ($1.94 per month) for the average household $138.40 ($11.53 per month) for the average commercial entity	$25.35 ($2.11 per month) for the average household $149.67 ($12.47 per month) for the average commercial entity	$27.17 ($2.26 per month) for the average household $159.83 ($13.33 per month) for the average commercial entity

Impacts	**Option 1** has no material changes to the current state and no change in funding for the Authority's operations. The Authority is reactive and unable to make timely progress on key projects. There will be potential delays to rules that unlock the potential of innovation, future mass participation, distributed energy resources. Consumer benefits will be inhibited as regulatory reform lags innovation and new technologies	**Option 2** provides funding to address acute pressure points. Under this option, the Authority continues to be more reactive than proactive but will be better placed to keep up with essential changes to policy, rules and the Code required through the transition. Consumers and the industry can expect evidence-based, timely decision making on what matters most. The Authority will also be able to respond to recommendations made in the independent baseline review albeit at variable speed and with some exceptions - notably on fundamental review and modernisation of the Code. The Authority will be better placed to make good progress towards realising the full benefits of enabling new technologies and changes to market operations.	**Option 3** enables the Authority to broaden its work programme and progress at a faster pace. Compared to Option 2, under this option consumers and the industry can expect inclusive and timely decision making on what matters most now and in the medium to long term, and more regulatory certainty. The Authority will be more proactive and more resilient to unplanned issues and events when they arise without major disruption to existing work. There will be significant progress towards realising the full benefits of enabling new technologies and changes to market and paving the way for the consumer of the future. The Authority will be better able to serve the needs of smaller groups and individuals in a more tailored way, rather than approaches that are generic across the market as a whole. Our most vulnerable consumers will see the Authority and other agencies joined up to take a systems response to energy hardship.	Option 4 builds on Option 3 and is more medium-term in nature. The funding under Option 4 enables a further expansion of the scope of activity but also changes in how the Authority approaches its work. Under this option, the Authority is a leader, rather than enabler, of a consumer-focused transition and is able to deliver a more orderly transition where the benefits and costs to consumers are respectively maximised and minimised. Industry will be able to move faster and will be working alongside the regulator to stay ahead of change and provide energy as a service. The Authority will be strongly future focused and future proof – we will be much better placed to absorb and address growth in demand of the organisation as the transition progresses.
Risks	The risks are: • a disorderly transition resulting in higher costs and less benefits for consumer • security of supply, lower investment, higher costs and, ultimately, higher prices for consumers. • delays to requests for change, key projects and regulatory maintenance (Code updates). • little trust in the system and regulator • a reactive regulator dealing with issues in isolation and no system wide response • lack of understanding of existing and emerging issues due to insufficient engagement with other regulators, the sector and consumer advocacy groups.	The risks are: • slow and delayed progress on some key projects • slow responses to Code change requests • system still under pressure • stakeholder expectations of the Authority are inconsistent with what the Authority can deliver • loss of trust in the system and regulator • limited alignment with other government agencies/industry participants leading to an approach that is not joined up, or worse, in conflict • inability to be more proactive and organised, more engaged with industry and consumer groups, and more pragmatic and nimble	There is significantly reduced risk under Option 3 as regulation keeps pace with change, enables more investment and more participation in the market and the potential of distributed energy resources for individuals, communities and the country are realised. Less risk of: • being unable to keep up with the pace of change. • significant disruption when having to respond to major unplanned events. There is some risk in terms of being able to successfully implement Option 3 (including large number of new personnel that need to be recruited) but the Authority considers it can effectively manage these risks.	Option 4 presents the lowest risk in terms of the success, as measured by trying to minimise the costs and maximise the benefits to consumers, of the transition. However, it has higher implementation risk than Option 3, but the risks are mitigated if implementation is staged over the medium term.

Glossary of abbreviations and terms

Authority	Electricity Authority Te Mana Hiko
Act	Electricity Industry Act 2010
Code	Electricity Industry Participation Code 2010
Regulations	Electricity Industry (Enforcement) Regulations 2010