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Annual Report

For the year ended 30 June 2023

EECA
TE TARI TIAKI PŪNGAO
ENERGY EFFICIENCY & CONSERVATION AUTHORITY

Presented to the House of Representatives provided by Section 150(3) of the Crown Entities Act 2004

Terms outlined in this document are defined in the glossary on page 128.

Image: Craters of the Moon, Taupō, North Island, New Zealand by Rachel Mataira.

Contents

Mai i te Poari
From the Board

Tēnā koutou katoa.

It is my pleasure to present Te Tari Tiaki Pūngao Energy Efficiency and Conservation Authority's (EECA) Annual Report for 2022/23.

Climate change demands urgent action. We are proud to be celebrating another year of successfully delivering clean and clever programmes that support New Zealand's transition to a sustainable energy system. We are actively unlocking energy-related emissions reductions that will support New Zealand to meet our international emissions reduction obligations under the Paris Agreement and our domestic net zero emissions target under the Climate Change Response Act, helping to avoid the impacts on our environment and potential costly offshore offsetting.

We continued to deliver projects that accelerate energy-related emissions reductions from New Zealand businesses, particularly through our Government Investment in Decarbonising Industry Fund. This programme is bringing forward emissions reductions in industry that would not have happened at speed or scale without government action. With the funding boost announced in Budget 2022, we launched an expanded version of the fund to support a broader range of projects and tackle decarbonisation in new ways. This includes our partnerships stream that targets the largest energy users and emitters. Already, we have a conditional agreement in place for New Zealand's largest ever emissions reduction project – the equivalent of taking 300,000 cars off the road.

Transport is the largest contributor to New Zealand's energy-related emissions. Supporting innovative and emerging low-emissions transport technologies is key to the solution. For the first time, the Low Emissions Transport Fund co-funded commercial maritime and offroad projects. The fund is also successfully accelerating the rollout of public electric vehicle charging infrastructure to meet current and future demand. Continuing this work will be essential to ensure New Zealanders have the confidence to make the switch to an electric vehicle. We are delighted the Government has boosted its investment over the coming years to deliver more public journey fast-charging hubs in key highway locations, and chargers to connect rural communities.

This year, our Warmer Kiwi Homes programme hit 100,000 insulation and heating retrofits in low-income homes since 2018. We are proud so many New Zealanders are now enjoying the benefits of warmer, drier, healthier homes with lower power bills and an estimated $15 million a year in avoided health system costs. Budget 2023 permitted continuation of these retrofits and the expansion of our offerings even further over the coming years.

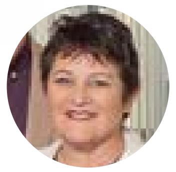
Another significant achievement was the full allocation of the State Sector Decarbonisation Fund to projects that will reduce energy-related emissions in the public sector. The fund has been crucial in supporting the Government's Carbon Neutral Government Programme and has enabled government agencies to lead by example.

Our insights and campaigns continued to help individuals, communities, and businesses understand how energy use impacts climate change and the actions that can be taken to use energy more efficiently.

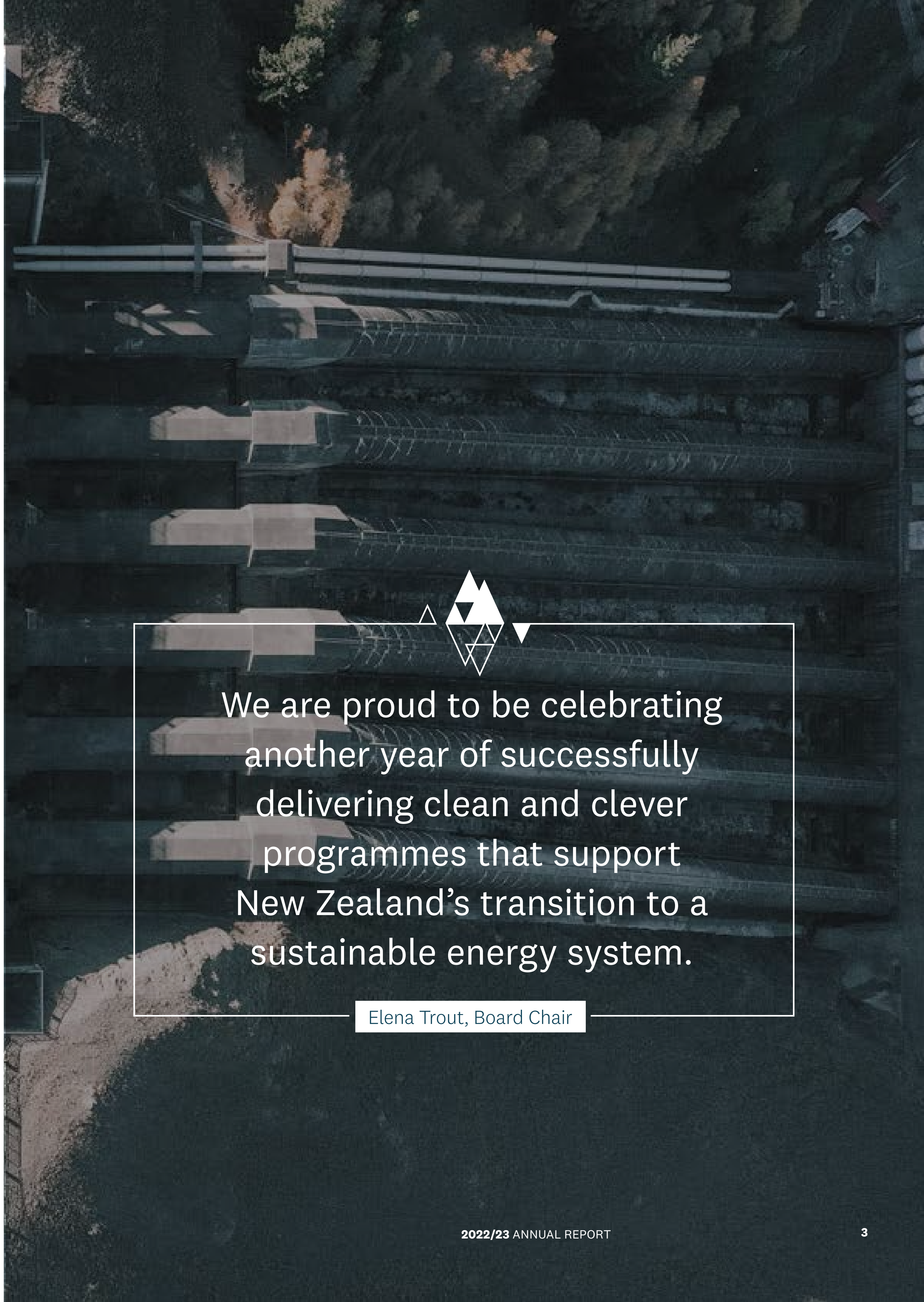
The Board would like to take this opportunity to farewell and thank Andrew Caseley for his work as Chief Executive over the past seven years. Andrew has guided EECA through a period of significant change in the energy sector as we transition to a low-emissions energy system. We would also like to acknowledge the contributions of Norman Smith, Linda Wright and Loretta Lovell who have now completed their terms on the Board. We look forward to welcoming new Board members Dr Daniel Tulloch, Judi Jones, Andrew Knight, and Christopher Boyle.

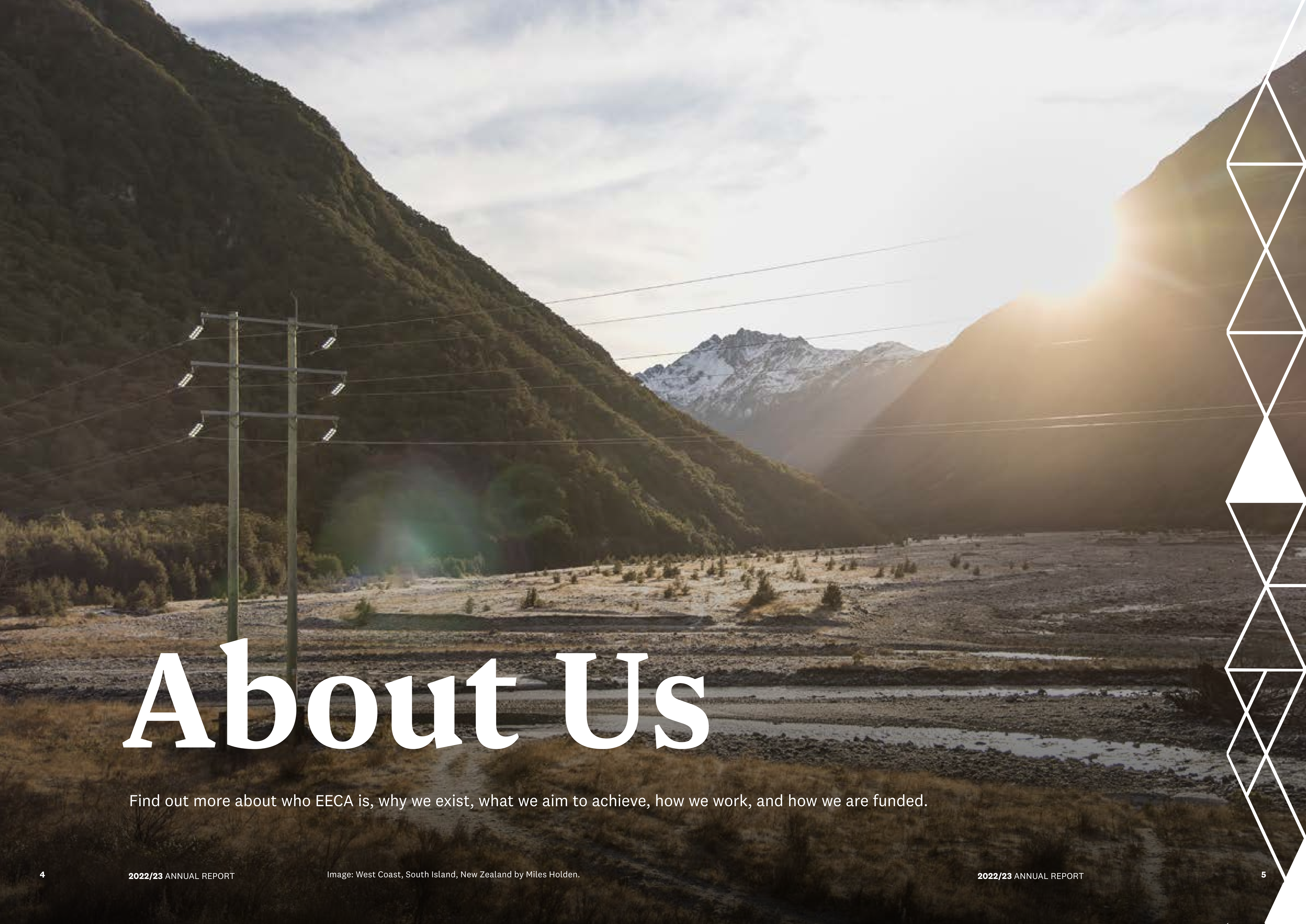
Over the coming year, we will continue accelerate the reduction of New Zealand's emissions from energy use at a time when these reductions are critical. We look forward to building on EECA's strong record of delivery towards a sustainable energy system that supports the prosperity and wellbeing of current and future generations.

Ka nui taku mihi atu nei,



Elena Trout
Board Chair
on behalf of the Board 31 October 2023





About Us

Find out more about who EECA is, why we exist, what we aim to achieve, how we work, and how we are funded.

Image: West Coast, South Island, New Zealand by Miles Holden.

Who we are

Te Tari Tiaki Pūngao the Energy Efficiency and Conservation Authority (EECA) is a Crown agency. We exist to encourage, promote, and support energy efficiency, energy conservation, and the use of renewable sources of energy. Our purpose is to mobilise New Zealanders to be world leaders in clean and clever energy use.

Energy comes from physical and chemical resources, such as the sun and fossil fuels.

We need energy for everything from manufacturing and electricity generation, right through to powering our vehicles and homes.

Energy efficiency is using less energy to perform a task, usually with the help of efficient technologies.

For example, an efficient LED light bulb still lights up the room – but it uses less energy in doing so.

Energy conservation is changing our activities to reduce energy use.

A simple example is turning off the lights when no one is in the room.

Renewable sources of energy (often referred to as clean energy) come from natural resources that can be replenished and will not run out.

Renewable energy sources include solar, hydro, geothermal, biomass, wind, and marine. Energy sources like fossil fuels will eventually run out, so they are non-renewable.

Through energy efficiency, energy conservation and the use of renewable energy, we can cut our emissions, reduce demand on national electricity grids, and save money on power and fuel – leading to better outcomes for our communities, our health, and our planet.

Te Tiriti o Waitangi | The Treaty of Waitangi

E mōhio ana mātau ko te Tiriti o Waitangi te tuhinga whai tikanga o te kāwanatanga, i noho pūmau ai tātau i te motu nei o Aotearoa. Ko ta mātau whāinga ko te tautoko i te Karauna i roto i ngā kaupapa whanaungatanga o te Tiriti kia pai ake ai te tuku i ā mātau ratonga mā ngā āhuatanga e tōkeke ai ngā putanga mō te Māori.

We recognise that the Treaty of Waitangi is a founding document of government in New Zealand and established the country as a nation. We aim to support the Crown in its Treaty of Waitangi relationships and deliver our services in ways that enable equitable outcomes for Māori.

Our strategy

Our purpose

Mobilise New Zealanders to be world leaders in clean and clever energy use.

Our strategic principles

Focus on impact

Pursue high-impact change with agility and at pace.

Understand the customer

Focus on those it is important to influence and influence them based on what they care about.

Define the problem

Identify what's blocking progress and tackle it head on.

Join the dots

Work with and connect people and organisations who can be part of achieving our purpose.

Display leadership

Be proactive, have a fact-based point of view, own it.

Our strategic focus areas

Productive and low-emissions business

Motivate decision makers to accelerate the transition to a low-emissions economy.

Efficient and low-emissions transport

Switch to efficient low-emissions technologies and fuels to move people and goods.

Energy efficient homes

Optimise New Zealand's use of renewable energy at home.

Government leadership

Lead the transition to a low-emissions economy.

Engage hearts and minds

Create an enabling environment for systemic change, where clean and clever energy is expected and demanded.

Our desired outcome

A sustainable energy system that supports the prosperity and wellbeing of current and future generations.

Why is clean and clever energy use important?

Human activities produce greenhouse gas emissions that are changing the climate and our environment. Energy use is one of those activities.

Climate change is caused by rapidly increasing greenhouse gas emissions in our atmosphere. Right now, our climate is changing faster than at any other time in history. Greenhouse gas emissions are at their highest levels in three million years, and we are starting to see the effects of this on our environment.

As reports from the Intergovernmental Panel on Climate Change (IPCC) have stated, it is unequivocal that emissions produced by human activities have warmed the atmosphere, ocean, and land.

Energy use is one of those activities. We create energy-related emissions when we burn fossil fuels in our industrial operations, in our homes, and in the ways that we get around. In fact, energy use is responsible for over 40% of New Zealand's total greenhouse gas emissions.

2016

New Zealand entered into the international **Paris Agreement**, committing to reducing our greenhouse gas emissions to 50% below 2005 levels by 2030.

2019

New Zealand committed to net zero greenhouse gas emissions by 2050 under the **Climate Change Response Act.**

2022

The New Zealand Government created the **first three emissions budgets** out to 2035 and released the first **Emissions Reduction Plan.**

2023

We are here!

Partway through the first emissions budget period.

2025

Marks the end of **Emissions Budget One** (2021-2025).

2030

Marks the **deadline for New Zealand's Paris Agreement target** and the **end of Emissions Budget Two** (2026-2030).

2035

Marks the end of **Emissions Budget Three** (2031-2035).

2050

Marks the **deadline for net zero greenhouse gas emissions** under the Climate Change Response Act.

Clean and clever energy use can reduce emissions that contribute to climate change, increase New Zealand's efficiency and productivity, reduce demand on our electricity infrastructure, and unlock related cost savings for businesses and New Zealanders.

In 2016, New Zealand and 200 other countries entered a legally binding international agreement, known as the **Paris Agreement**, which requires each country to reduce its emissions to help limit global warming. Under the Paris Agreement, New Zealand has committed to reducing our greenhouse gas emissions to 50% below 2005 levels by 2030.

In 2019, the Government also set a legislated domestic target of net zero greenhouse gas emissions (except biogenic methane) by 2050 under the **Climate Change Response Act**.

To keep us on track for our targets, the Government introduced 'emissions budgets' (interim targets) that set the maximum quantity of emissions that can be released during specific time periods. In May 2022, the Government published the **first three emissions budgets** for 2022–2025, 2026–2030, and 2031–2035. It also published the first **Emissions Reduction Plan (ERP)** with policies and strategies for meeting the emissions budgets.

The stakes are high. If New Zealand does not take enough action to reduce our own domestic emissions, we will face the impacts on our environment and potential costly offshore credits to meet the difference. With energy use responsible for over 40% of New Zealand's total greenhouse gas emissions, EECA is playing a pivotal role in unlocking emissions reductions at the speed and scale required to meet our targets.

Reducing emissions is not the only benefit of clean and clever energy use – it can help increase New Zealand's efficiency and productivity, reduce demand on our electricity infrastructure, and unlock related cost savings for businesses and New Zealanders.

New Zealand's energy related emissions

Energy use is responsible for over 40% of New Zealand's total greenhouse gas emissions. EECA is focused on the most significant opportunities for emissions reductions at speed and scale.

With New Zealand's emissions targets set, understanding where energy-related emissions come from is fundamental to determining where significant reductions can be made. This is at the centre of EECA's decision-making. Our programmes are focused on the areas we know we can make the biggest impact in the shortest amount of time (with good value for public funding).

Our advice, co-funding, and regulations help New Zealanders and businesses understand their energy use and related emissions, and supports them to take steps to reduce them. Government action is crucial to accelerate energy-related emissions reductions that otherwise would not have happened at speed or scale.

We need everyone – central and local government, community leaders, iwi, business decision-makers and owners, investors, innovators, educators, media, and household decision-makers – to contribute to the solution. We must be bold. By doing more, faster, we can help avoid the worst impacts of climate change and leave a healthy, stable planet for future generations.

Ka ora a Papatūānuku,
Ka ora Te Tangata.

When the earth is well,
the people will be well.

TRANSPORT

18.3% =

Light vehicles *e.g. emissions from cars and vans*

11.9%

Other transport *e.g. freight, buses, rail and domestic aviation*

6.4%

BUSINESS

17.3% =

Industrial *e.g. dairy, meat, food processing, textiles and products*

12.9%

Agriculture, Forestry and Fishing *e.g. dairy/stock farming, horticulture, aquaculture, fishing*

2.6%

Commercial *e.g. retail, hospitality, education and healthcare*

2.1%

HOMES

4.2% *e.g. gas and wood use in homes*

GOVERNMENT

0.8% *e.g. government organisations*

TOTAL

Over 40% of New Zealand's total greenhouse gas emissions.

40.6%

non energy-related emissions (industrial processes, waste, agriculture).

59.4%

Source: Greenhouse Gas Inventory 1990-2021, Ministry for the Environment (2023), EECA Energy End Use Database 2023 (2021 data).

Our desired outcome and strategic focus areas

OUR DESIRED OUTCOME IS:

A sustainable energy system that supports the prosperity and wellbeing of future generations.

TO ACHIEVE THIS, WE FOCUS OUR EFFORTS IN FIVE AREAS WHERE WE KNOW THERE IS PROGRESS TO BE MADE:

Productive and low-emissions business

17.3% of New Zealand's emissions come from energy use in the business sector.

What outcomes do we seek?

- Businesses meet emissions reductions targets
- Businesses utilise low emissions innovations and insights
- Businesses benefit from improved energy productivity

Efficient and low-emissions transport

18.3% of New Zealand's emissions come from energy use in the transport sector.

What outcomes do we seek?

- New Zealand adopts low-emissions transport technologies and fuels
- Government establishes low-emissions transport policies and initiatives
- New Zealanders choose low-emissions mobility options

Energy efficient homes

4.2% of New Zealand's emissions come from energy use in homes.

What outcomes do we seek?

- New Zealanders live in energy efficient homes that are warm, dry, and healthy
- New Zealand households benefit from an efficient, well-integrated, and resilient renewable energy system

Government leadership

Government has a key leadership role to play in the transition to a sustainable energy system.

What outcomes do we seek?

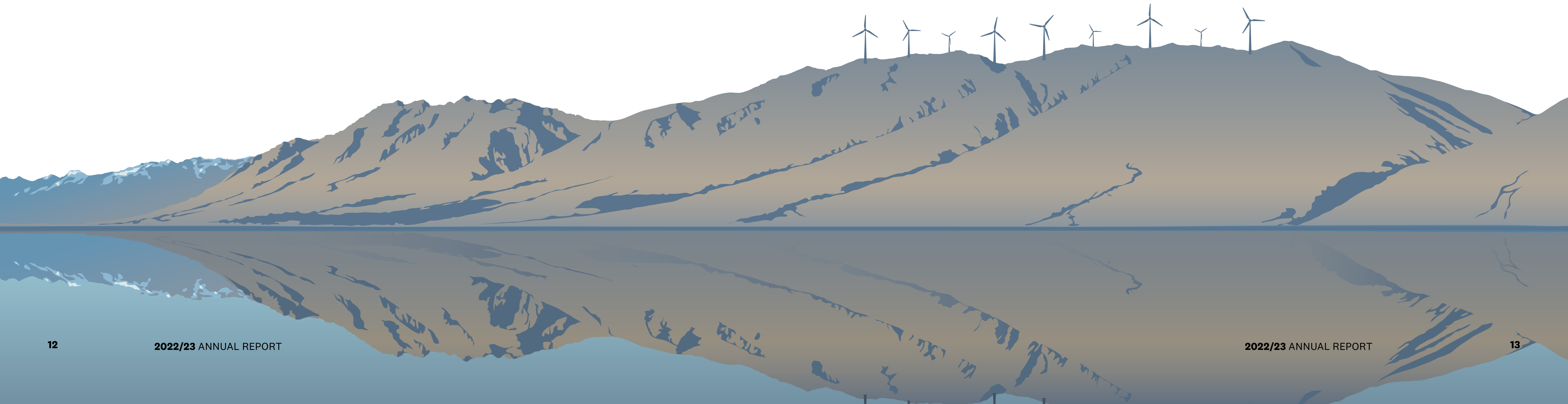
- Government agencies transition to a low-emissions economy
- New Zealand benefits from low-emissions transition lessons
- Government agencies collaborate on low-emissions policies and initiatives

Engage hearts and minds

Every day, we make decisions about how we use energy.

What outcomes do we seek?

- New Zealanders change their climate-related attitudes and behaviours
- Businesses change their attitudes and behaviours to reduce emissions
- Government's low-emissions policies and regulations are bold and credible



The tools we use to make change

Kia pono te anga whakamua me eke ngā mahi i ngā wāhi katoa. True progress requires action at all levels.

EECA uses a combination of three important levers to make change towards a sustainable energy system that supports the prosperity and wellbeing of current and future generations. Government use of these levers enables clean and clever progress to happen faster than it would have otherwise. This is essential given the pace of action required to avoid the impacts of climate change and to meet our emissions reduction targets.

1 Motivating people

We motivate people and businesses to make clean and clever energy choices.

We need New Zealanders and businesses to make clean and clever energy choices through energy efficiency, conservation, and the use of renewable energy sources. We have a key role to play in helping people and businesses understand their energy use and related emissions and motivating them to take steps to reduce these. Our evidence-based insights, tailored resources, and public engagement campaigns help us achieve this.

2 Co-investing

We co-invest in energy efficient technologies and the use of renewable sources of energy.

When there are financial barriers to clean and clever energy use, we help to overcome these by appropriately sharing the financial risk so low-emissions options become financially viable and happen faster. We do this through our co-investment programmes like Warmer Kiwi Homes and the Government Investment in Decarbonising Industry Fund.

3 Regulating

We put requirements in place to increase the energy efficiency of products and help people make informed purchasing decisions.

We develop and enforce energy efficiency standards to help prevent inefficient products and appliances from being sold in New Zealand. This saves New Zealanders money, reduces energy use and demand on the power grid, and cuts related emissions. We also implement labelling requirements for products, appliances, and vehicles to help consumers compare the energy efficiency and running costs when deciding what to buy.

How we are funded

In 2022/23, we received funding totalling $168.6 million to mobilise New Zealanders to be world leaders in clean and clever energy use.

$168.6m WHERE OUR MONEY COMES FROM

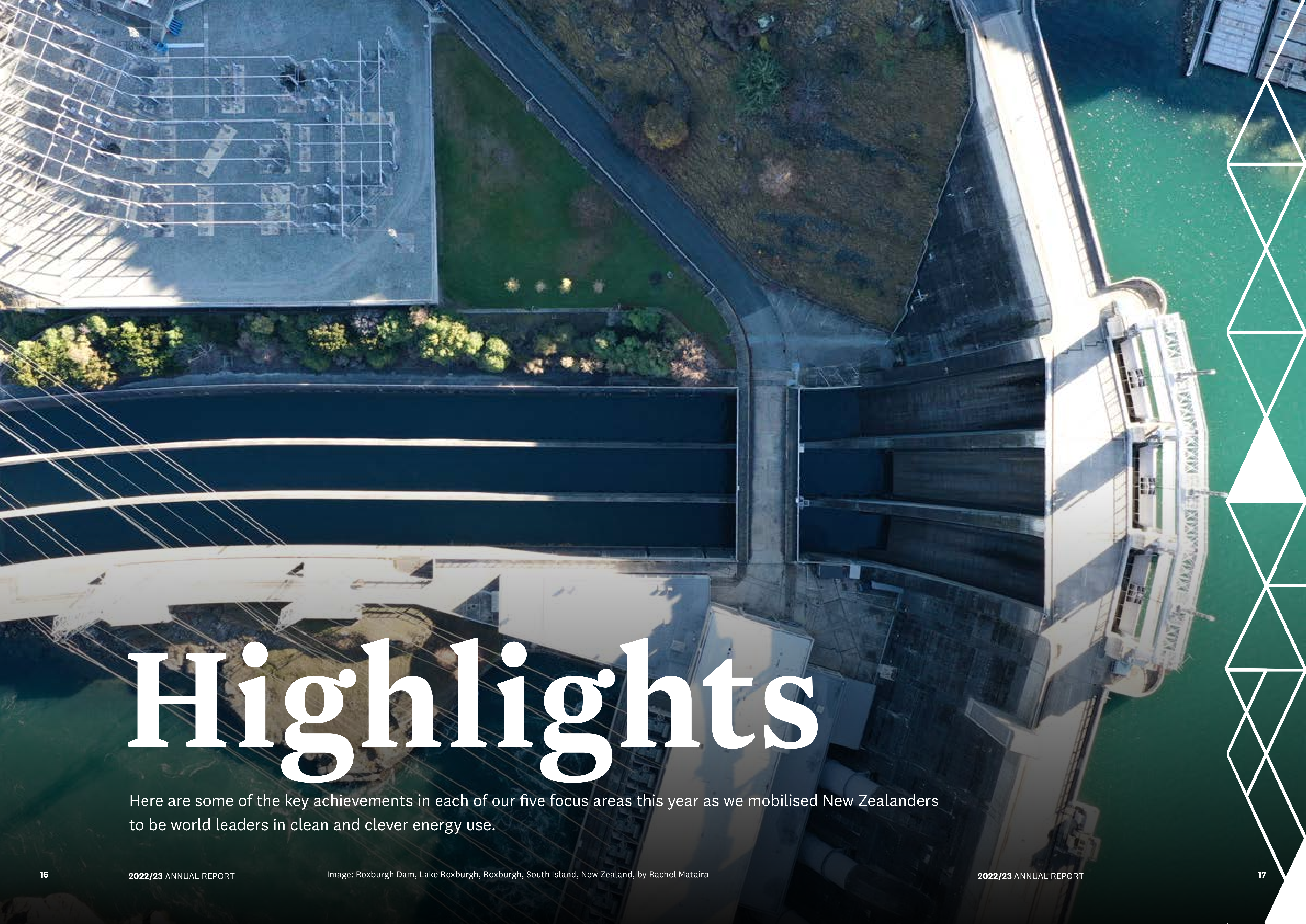
GOVERNMENT	ELECTRICITY INDUSTRY LEVY	PETROLEUM OR ENGINE FUEL MONITORING LEVY	GAS SAFETY, MONITORING AND ENERGY EFFICIENCY LEVY	THIRD PARTY FUNDING	OTHER EARNINGS
$143.8m	$5.3m	$10.5m	$1.5m	$1.5m	$6.0m
From government taxes to achieve improvements in energy efficiency, energy conservation and use of renewable energy	Paid by electricity industry participants who purchase electricity from the wholesale market	Paid by fuel importers on petroleum or engine fuel sold who pass on the cost on to consumers	Paid by sellers of piped natural gas to gas retailers and gas retailers who pass on the cost to consumers	Third-party funding to achieve energy efficiency and health benefits for households	Income from our Crown loan fees and our investment income

$147.2m WHERE OUR MONEY GOES

PRODUCTIVE AND LOW-EMISSIONS BUSINESS	EFFICIENT AND LOW-EMISSIONS TRANSPORT	ENERGY EFFICIENT HOMES	GOVERNMENT LEADERSHIP	ENGAGE HEARTS AND MINDS
$42.1m	$14.1m	$77.9m	$10.4m	$2.7m
Motivating business decision-makers to accelerate the transition to a low-emissions economy	Switching to efficient and low-emissions technologies and fuels to move people and goods	Optimising New Zealand's use of renewable energy at home	Leading the transition to a low-emissions economy	Creating an enabling environment for systemic change where clean and clever energy is expected and demanded

Our desired outcome

A sustainable energy system that supports the prosperity and wellbeing of current and future generations.



Highlights

Here are some of the key achievements in each of our five focus areas this year as we mobilised New Zealanders to be world leaders in clean and clever energy use.

Image: Roxburgh Dam, Lake Roxburgh, Roxburgh, South Island, New Zealand, by Rachel Mataira

Productive and low-emissions business

Motivating business decision-makers to accelerate the transition to a low-emissions economy.

Why business?

18.3% of New Zealand's emissions come from energy use in the business sector.

The largest portion of the business sector's energy-related emissions comes from the burning of fossil fuels for 'process heat' – the steam, hot water or hot gases used in industrial processing, manufacturing, and space heating.

The good news is, there are low-emissions alternatives available for businesses that can enable them to be more productive with less emissions.

EECA provides expertise and co-funding to overcome commercial barriers that would otherwise stop businesses from investing in low-emissions options as quickly. This enables earlier and larger emissions reductions – which are crucial for meeting New Zealand's legislated and international emissions reduction targets – and helps lower costs for businesses.

The outcomes we seek

1. Businesses meet emissions reductions targets
2. Businesses utilise low-emissions innovations and insights
3. Businesses benefit from improved energy productivity

Our contribution

GOVERNMENT PRIORITIES[1]

» JUST TRANSITION

» FUTURE OF WORK

SUSTAINABLE DEVELOPMENT GOALS[2]

7 PŪNGAO PAI · 9 HANGA PAI · 12 MAHI TIKA · 13 HIWA AHUARANGI

LIVING STANDARDS FRAMEWORK[3]

Environmental amenity · **Work, care and volunteering** · **Knowledge and skills**

Key achievements this year[4]

GOVERNMENT INVESTMENT IN DECARBONISING INDUSTRY (GIDI) FUND

The GIDI Fund received a funding boost through Budget 2022 to increase the number and types of industry decarbonisation initiatives it can support. This year, we completed the design of the expanded GIDI Fund (GIDI 2.0) with five key co-funding streams. GIDI gets decarbonisation projects across the line and happening faster than they otherwise would without government support, delivering larger and earlier emissions reductions. This is critical to help meet our emissions reduction targets and avoid costly offshore credits and the impacts on our environment.

GIDI Industrial
We completed two rounds of contestable GIDI Industrial funding, with:

32
Projects supported

$49.45m
of government co-funding

$95.1m
of applicant funding

105,000t
of expected emissions reductions annually.

GIDI Partnerships
We designed a new GIDI Partnerships workstream to support New Zealand's largest energy users to decarbonise. As announced in May 2023, we entered into a conditional agreement with New Zealand Steel to deliver the country's largest ever emissions reduction project, with expected emissions reductions of **800,000** tonnes per year (or 1% of New Zealand's annual emissions).

GIDI Clean Tech
We designed and launched two technology pilots (electric motor systems and commercial lighting) to support businesses in the commercial and industrial sectors to install energy-efficient, low-emissions technologies. We also developed a market-scale programme for hot water heat pumps, ready to launch.

GIDI Commercial Buildings
Our new space and water heating programme was designed, ready to launch. It will help replace fossil fuel boilers used for space and water heating in commercial buildings.

GIDI Infrastructure
We designed a biomass supply chain investment co funding stream and received 50 registrations of interest.

ENERGY TRANSITION ACCELERATOR (ETA) PROGRAMME

We completed ETA opportunities assessments for 11 businesses and 2 public sector organisations, providing them with individualised low-emissions pathways.

We launched a regional version of the ETA programme (RETA) to support a well-informed and coordinated approach to regional decarbonisation and completed three RETA reports.

TECHNOLOGY DEMONSTRATION FUND

15 PROJECTS

We provided co-funding for 15 technology demonstration projects, including horticulture machinery electrification, indoor cropping heat pump space heating, and electric frost fans.

SECTOR DECARBONISATION PROGRAMME

We published decarbonisation pathway resources for six key sectors: covered cropping, brewing, coffee roasting, commercial office buildings, aged care/retirement villages, and expanded polystyrene.

EQUIPMENT ENERGY EFFICIENCY (E3) PROGRAMME

Our E3 programme prevents inefficient commercial products from being sold in New Zealand. Businesses saved 0.82 PJ of energy (up from 0.7 PJ last year) through our Energy Efficiency Regulations, with 5.2 million regulated products sold in the year. That's equivalent to the yearly energy use of over 19,000 homes.

BUSINESS RESEARCH AND INSIGHTS

We commissioned and received the heat plant dataset for the entire South Island and published it as part of our Regional Heat Demand Database tool.

We published a research report on the food manufacturing sector to increase understanding of the sector's energy use.

1 https://www.treasury.govt.nz/sites/default/files/2022-12/bps23_2.pdf

2 In 2015, the United Nations adopted 17 global goals to end poverty, protect the planet and ensure prosperity for all. Each goal has a number of targets to be achieved by 2030. EECA's activities and programmes contribute to achieving the listed goals.

3 The Treasury's Living Standards Framework identifies domains that contribute to how New Zealanders experience wellbeing. EECA's activities and programmes help to improve the listed domains.

4 Note this is intended as a summary of our key achievements. Some of this information is captured in the 'Assessing Our Performance' section where we track progress against our accountability performance measures, while other information is provided here as additional context for our wider work programme and achievements.

Efficient and low-emissions transport

Switching to efficient low-emissions technologies and fuels to move people and goods.

Why transport?

18.3% of New Zealand's emissions come from energy use in the transport sector.

When we burn fossil fuels like petrol and diesel to power our cars, trucks, buses, boats, trains, and planes, we produce greenhouse gas emissions that contribute to climate change.

Minimising the transport sector's emissions will not be a quick fix. However, optimising the way we move people and goods and making the most of available low-emissions options is key to the solution.

EECA supports innovative and low-emissions transport technologies, fuels, and infrastructure to give New Zealanders and businesses the confidence to make the switch. This enables earlier and larger emissions reductions, which are crucial for meeting New Zealand's legislated and international emissions reduction targets.

The outcomes we seek

1. New Zealand adopts low-emissions transport technologies and fuels
2. Government establishes low-emissions transport policies and initiatives
3. New Zealanders choose low-emissions mobility options

Our contribution

GOVERNMENT PRIORITIES

» JUST TRANSITION

SUSTAINABLE DEVELOPMENT GOALS

3 MAURI ORA · 7 PUNGAO PAI · 9 HANGA PAI · 11 HAPORI ORA · 12 MAHI TIKA · 13 HIWA AHUARANGI

LIVING STANDARDS FRAMEWORK

Environmental amenity **Health**

Knowledge and skills

Key achievements this year[5]

LOW EMISSION TRANSPORT FUND (LETF)

We completed six contestable funding rounds to demonstrate innovative transport technologies that support broader uptake and associated emissions reductions:

45
projects supported

$17.60m
of government co-funding

$35.85m
of applicant funding.

For the first time, the LETF broadened to include marine and offroad projects. We were able to co-fund innovative projects like an electric motor outboard, an electric hydrofoil ferry, and an electric dump truck.

We increased access to public electric vehicle chargers, shifting towards supporting more high-powered fast-charging stations.

We co-funded

60 public charging stations

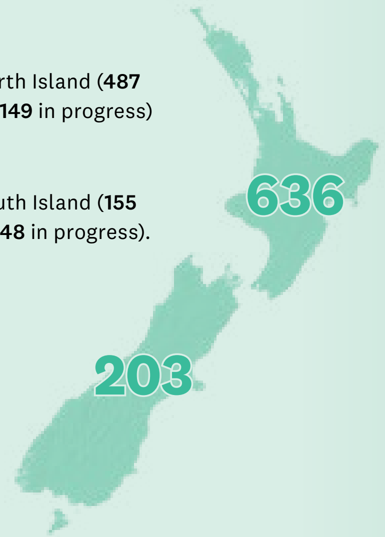
this year, including three of the country's first public journey charging 'hubs' where multiple high-speed chargers will be installed at key locations alongside amenities.

839 PUBLIC CHARGERS

To date, we have now co-funded **839** public charging stations in New Zealand:

636 in the North Island (**487** installed and **149** in progress)

203 in the South Island (**155** installed and **48** in progress).



VEHICLE EMISSIONS AND ENERGY ECONOMY LABELLING PROGRAMME

16,210 VEHICLES

16,210 vehicles were checked for compliance with the Vehicle Emissions and Energy Economy Label requirements, with compliance sitting at 88.5%.

SMART ELECTRIC VEHICLE CHARGING

We revised the Publicly Available Specification (PAS) for Commercial Electric Vehicle (EV) Charging to include more information on 'destination' chargers (located where people tend to spend long periods of time).

We also revised the PAS on Residential EV Charging to include information on 'smart' EV chargers. These are chargers that have the capacity to respond to peak electricity demand, helping to manage the load on the electricity grid and reduce charging costs for users.

To further encourage smart charger uptake, we started to develop products including a "whitelist" of EV chargers, to help consumers to identify which chargers on the market are smart.

RESEARCH AND INSIGHTS PROGRAMMES

We published a Maritime Transport Emissions Reduction Market Scan and Analysis highlighting the maritime sector's heavy reliance on fossil fuels and the opportunity to transition boats to clean energy.

We conducted market research on EV owners' charging behaviours to build on our baseline data from 2021, as the number of EVs in use since our first survey has nearly doubled.

[5] Note this is intended as a summary of our key achievements. Some of this information is captured in the 'Assessing Our Performance' section where we track progress against our accountability performance measures, while other information is provided here as additional context for our wider work programme and achievements.

Energy efficient homes

Optimising New Zealand's use of renewable energy at home.

Why homes?

4.2% of New Zealand's emissions come from energy use in homes.

Homes are the beating heart of our nation, where whānau and friends gather to eat, work, celebrate and everything else in between. Our energy consciousness starts here.

We use energy in our homes to power everything from appliances to hot water. The dominant energy source is our highly renewable electricity system. However, households have a significant impact on New Zealand's peak electricity use when electricity generation tends to be at its least renewable and most expensive to produce (for example, winter evenings).

EECA is focused on improving the energy efficiency of New Zealanders' homes. This will not only reduce emissions – it will play a vital role in making sure whānau can enjoy warm, dry, and healthy homes while managing their energy costs and reducing health system costs.

The outcomes we seek

1. New Zealanders live in energy efficient homes that are warm, dry, and healthy
2. New Zealand households benefit from an efficient, well-integrated, and resilient renewable energy system

Our contribution

GOVERNMENT PRIORITIES

- JUST TRANSITION
- MĀORI AND PACIFIC
- CHILD WELLBEING
- PHYSICAL AND MENTAL WELLBEING

SUSTAINABLE DEVELOPMENT GOALS

3 MAURI ORA
7 PŪNGAO PAI
12 MAHI TIKA
13 HIWA AHUARANGI

LIVING STANDARDS FRAMEWORK

- Health
- Housing
- Knowledge and skills
- Income, consumption and wealth

Key achievements this year[6]

WARMER KIWI HOMES PROGRAMME

25,074

retrofits were installed in low-income houses through the Warmer Kiwi Homes programme, made up of:

14,930 Insulation retrofits & **10,144** heating retrofits

We exceeded

100,000

installs since the programme began in 2018. The total number of installs is now over **118,000**.

Motu released phase two of its independent impact evaluation report on the Warmer Kiwi Homes programme, which outlined substantial benefits for homeowners including:

- increased comfort and satisfaction in the home
- a **16%** reduction in energy use over winter months
- an estimated **$15 million** per year in avoided health costs

A big thank you to all of our Warmer Kiwi Homes funders for the significant contribution they make to the health and wellbeing of their local communities through their generous funding, which makes insulation and heating even more affordable for low-income homeowners. In particular, we thank **Foundation North** for its ongoing generous contributions, including the commitment of an additional **$1 million** for insulation retrofits in Northland and Auckland.

DEMAND RESPONSE AND DEMAND FLEXIBILITY

EECA collaborated with industry on a pilot demonstrating the potential of 'smart' electric vehicle charging. Smart chargers can receive signals from electricity suppliers and charge vehicles when the demand for electricity from the grid is at its lowest. This project will provide us with guidance on how to implement demand flexibility into our energy system, and give consumers the power to use electricity when it's cheapest, greenest and most readily available.

EQUIPMENT ENERGY EFFICIENCY (E3) PROGRAMME

Our **Energy Efficiency Regulations** saw **0.93 PJ** of energy saved by consumers this year (up from 0.86 last year) as a result of stopping inefficient residential products from being sold in New Zealand. That's equivalent to the yearly energy use of over **21,000** homes.

Our **Equipment Energy Efficiency programme** saved **1.76 PJ** of energy across both residential and commercial products (up **13%** on the previous year), equating to a reduction of **53,600** tonnes of emissions, and **$42.9 million** in national benefit.

Sales data shows that over **5.16 million** regulated products were sold in New Zealand during the reporting year – that's one every 6 seconds.

We 'check tested' **36** different clothes dryer, clothes washing machine, and three-phase electric motor models for compliance with **Minimum Energy Performance Standards** (MEPS) and/or **Mandatory Energy Performance Labelling** (MEPL) requirements.

We inspected **24,777** products for MEPL requirements, with results showing **97.3%** compliance (up from 96.5% last year).

[6] Note this is intended as a summary of our key achievements. Some of this information is captured in the 'Assessing Our Performance' section where we track progress against our accountability performance measures, while other information is provided here as additional context for our wider work programme and achievements.

Government leadership

Leading the transition to a low-emissions economy.

Why Government leadership?

0.8% of New Zealand's energy-related emissions come from government agencies.

While this footprint is comparatively small, the Government has a key leadership role to play in the transition to a low-emissions future.

Government agencies must both demonstrate the action required to accelerate the transition and influence New Zealanders to do the same.

EECA is focused on supporting government agencies to model clean and clever energy use, to develop bold energy policies, and to share the lessons for others to learn from.

The outcomes we seek

1. Government agencies transition to a low-emissions economy
2. New Zealand benefits from low-emissions transition lessons
3. Government agencies collaborate on low-emissions policies and initiatives

Our contribution

GOVERNMENT PRIORITIES

» JUST TRANSITION

SUSTAINABLE DEVELOPMENT GOALS

7 PŪNGAO PAI
9 HANGA PAI
12 MAHI TIKA
13 HIWA AHUARANGI

LIVING STANDARDS FRAMEWORK

Enagement and voice

Environmental amenity

[7] Note this is intended as a summary of our key achievements. Some of this information is captured in the 'Assessing Our Performance' section where we track progress against our accountability performance measures, while other information is provided here as additional context for our wider work programme and achievements.

Key achievements this year[7]

STATE SECTOR DECARBONISATION FUND

51

We completed several tranches of State Sector Decarbonisation Fund (SSDF) funding, which saw:

51 projects supported

- **15 boiler** replacement projects
- **7 chiller** replacements projects
- **13 LED** upgrade projects
- **15 electric vehicle** projects (supporting a total of 305 electric vehicles)
- **A Te Whatu Ora Energy Transition Programme** (which will fund projects that reduce stationary energy emissions in hospitals across the country)

$86.02m

of government co-funding

$105.29m

of applicant funding

53,850t

of expected emissions reductions each year

A commitment to removing all coal boilers from the Government Estate.

The fund has now been completely allocated to projects.

CROWN LOANS SCHEME

We supported 36 public sector energy efficiency and emissions reduction projects through:

$3.34m

of crown loans.

RESEARCH AND INSIGHTS PROGRAMMES

We published an insights report on '**biomass boilers for industrial process heat**' to help businesses looking for low-carbon alternatives to fossil fuel boilers.

We published an insights report on '**the business good of decarbonisation**' that outlines the benefits of decarbonisation for businesses.

We published a series of new pages on our website that provide a comprehensive overview of renewable energy sources and applications.

Our low-emissions website tools were used **500,000** times this year.

REGULATORY AMENDMENT PROJECT

We supported MBIE on a **Regulatory Amendment Project**, proposing changes to the Energy Efficiency and Conservation Act (2000). The project aims to enhance the effectiveness of our regulating regimes.

EMISSIONS REDUCTIONS PLAN

#1

We continued to prioritise the delivery of the first **Emissions Reduction Plan** by engaging across Government and progressing key workstreams, including the Government Investment in Decarbonising Industry Fund.

Engage hearts and minds

Create an enabling environment for systemic change, where clean and clever energy is expected and demanded.

Why hearts and minds?

Every day, we make decisions about how we use energy.

Energy is in everything we do, use, make and buy. Clean and clever energy use can deliver some significant benefits, but it requires collective action.

If every New Zealander makes improvements to the way they use energy, if businesses invest in energy efficiency and decarbonisation projects, and if bold policies are developed and adopted, we will see a significant decrease in our energy-related emissions.

Clean and clever energy use is essential to meeting New Zealand's legislated and international emissions reduction targets. EECA is committed to engaging the hearts and minds of New Zealanders to live more with less energy.

The outcomes we seek

1. New Zealanders change their climate-related attitudes and behaviours
2. Businesses change their attitudes and behaviours to reduce emissions
3. Government's low-emissions policies and regulations are bold and credible

Our contribution

GOVERNMENT PRIORITIES

» JUST TRANSITION

SUSTAINABLE DEVELOPMENT GOALS

7 PŪNGAO PĀI
11 HAPORI ORA
12 MAHI TIKA
13 HIWA AHUARANGI

LIVING STANDARDS FRAMEWORK

Subjective wellbeing
Knowledge and skills
Environmental amenity
Health

Key achievements this year[8]

ENERGY EFFICIENCY AND EMISSIONS REDUCTION CAMPAIGNS

We partnered with **TVNZ** to deliver a '**1 Climate Special**' to inform, inspire, and mobilise viewers to take a step towards a low-carbon future.

We reached

300,000

viewers, and **68%** took at least one action as a result.

We completed a '**Right-side**' campaign, which highlighted climate action being taken across the country. It reached **88%** of all New Zealanders aged between 25 and 54 over its 12-month course.

Together with Consumer NZ, we ran a campaign to deliver energy efficiency and cost saving tips to support New Zealanders over winter. We delivered **500,000** brochures to households and **250,000** booklets (in seven languages) to over 800 community partners.

BUSINESS-FOCUSED CAMPAIGNS

We launched a business marketing campaign sharing insights and advice from seven business leaders to encourage other business leaders to take steps to decarbonise.

Our **Clean and Clever Energy Forum** took place in May, where over **120** large energy users around the country gathered to network and learn about decarbonisation opportunities. The average feedback score for the event was **3.59 out of 4.0**.

TRANSPORT-FOCUSED CAMPAIGNS

We ran a '**World Car Free Day**' campaign with over **400** businesses signing up to participate.

Our 'Summer of Transport' campaign, which featured electric rally car driver **Hayden Paddon promoted electric vehicle (EV) charging tips**, our total cost of ownership tool, and addressed EV barriers. The campaign videos were viewed over **3.2 million** times.

50%

During the first quarter of this year, EV consideration hit **50%** for the first time ever. This means that 50% of people surveyed said they would likely consider an electric or plug-in hybrid electric vehicle for their next vehicle purchase.

AUDIENCE ENGAGEMENT

We have a significant number of visits to our website this year:

833,000

visits to our Gen Less website (up from 690,000 this time last year

630,000

visits to our EECA website (up from 576,000 this time last year)

3.2

Our average media impact score for the year was **3.2** (determined by assessing the content and tone of media and its reach to relevant audiences), which is **more than double** the benchmark for government agencies.

1k+

We helped to stand up a variety of insights webinars attended by **1,184** New Zealanders, including a deep dive into how businesses approach energy use and climate change.

[8] Note this is intended as a summary of our key achievements. Some of this information is captured in the 'Assessing Our Performance' section where we track progress against our accountability performance measures, while other information is provided here as additional context for our wider work programme and achievements.

Our Statement of Intent 2021-2025 and Statement of Performance Expectations 2022/23 provide our strategic direction and priorities. Each year, we deliver targeted mechanisms and programmes to help achieve our overall desired outcome of a sustainable energy system that supports the prosperity and wellbeing of current and future generations.

To monitor our progress, we set a series of four-year outcome measures in our Statement of Intent and annual output measures in our Statement of Performance and Estimates of Appropriations. This section outlines how we performed against those measures this year.

Performance

Here’s the end-of-year scorecard for our measures of success.

Image: West Coast, South Island, New Zealand by Miles Holden.

Introduction

Statement of responsibility

The Board is responsible for the preparation of EECA's financial statements and the Statement of Performance, including the end-of-year performance information, and for the judgements made in them. We are responsible for establishing and maintaining a system of internal control designed to provide reasonable assurance as to the integrity and reliability of financial and performance reporting.

In the Board's opinion, this Statement of Performance and these financial statements fairly reflect EECA's operations and financial position for the year ended 30 June 2023, and have been prepared in accordance with PBE Standards. The Board is responsible for any end-of-year performance information provided by the Crown under Section 19A of the Public Finance Act 1989, whether or not that information is included in EECA's annual report.

Elena Trout
Board Chair
on behalf of the Board 31 October 2023

Catherine Taylor
Deputy Chair

How to read this section

This section is split into our five strategic focus areas. Under each focus area, you will find progress against our annual output performance measures (related to our delivery programmes), progress against our broader four-year outcome performance measures, and information about how much our activities cost.

Key for distinguishing the types of performance measures

ANNUAL OUTPUT MEASURES FROM OUR STATEMENT OF PERFORMANCE EXPECTATIONS (SPE)

These measures are presented in navy tables and track progress against the annual targets we outlined in our Statement of Performance Expectations.

ANNUAL OUTPUT MEASURES FROM THE ESTIMATES OF APPROPRIATIONS

These measures are presented in light green tables and track progress against the annual targets outlined in the Estimates of Appropriations. Note some of these are the same as our SPE measures.

FOUR-YEAR OUTCOME MEASURES FROM OUR STATEMENT OF INTENT (SOI)

These measures are presented in dark green tables and track progress against the four-year outcomes we outlined in our Statement of Intent.

Key for distinquishing performance measure results

✓	Achieved
✗	Not achieved
?	Result not available
	Result impacted by COVID-19

Performance reporting standard PBE FRS 48

The New Zealand Accounting Standards Board (XRB) issued a Standard for Service Reporting: Public Benefit Entity Financial Reporting Standard 48 Service Performance Reporting (PBE FRS 48). The Standard provides requirements for selecting and presenting service performance information so that it is appropriate and meaningful to users when assessing performance against objectives. The Standard applies to annual reporting beginning on or after 1 January 2022 and therefore applies to this Annual Report. The Assessing our Performance section on pages 31 - 72 constitutes the service performance information presented in accordance with PBE FRS 48. Relevant contextual information can be found in the About Us section from pages 6 - 15.

Statement of compliance

EECA's service performance information for the period of 1 July 2022 to 30 June 2023 has been prepared in accordance with PBE Standards.

Disclosure of judgements

To give effect to reporting standard PBE FRS 48, EECA is required to disclose the judgements that had the most significant effect on the selection, measurement, aggregation, and presentation of our performance information.

Judgements on the selection of performance information

The selection of key activities to report on for 2022/23 was based on management's assessment of where EECA expected to invest the most time and resources in the period (based on budget information), which was further refined through discussions with staff and the Board. We consider the activities selected to report on are the most appropriate and meaningful to users.

Selection process

In selecting performance measures for our key activities, we considered the required characteristics of relevance, faithful representation, understandability, timeliness, comparability, and verifiability. We also considered the pervasive constraints of materiality, the cost-benefit, and the balance between the qualitative characteristics. Decisions were made in consultation with the entity's Board, key management personnel, and service managers.

Changes to performance measures

In reviewing our performance measures against the required characteristics and constraints, we made a number of changes to improve their appropriateness and meaningfulness. Significant changes to performance measures for 2022/23 (i.e. new measures, retired measures, or significantly altered measures) are outlined in the table in Appendix One (starting on page 65). In our view, the performance measures selected for 2022/23 adequately inform users what we achieved during the year and the progress we are making towards achieving our outcomes.

Judgements on the measurement, aggregation, and presentation of performance information

EECA has made judgements on the measurement, aggregation, and presentation of our performance information. Significant disclosures can be found alongside each performance measure under 'notes to the measure'.

Greenhouse gas emissions disclosure

Some of EECA's programmes and activities achieve reductions in greenhouse gas emissions. There is a level of inherent uncertainty in the measurement and reporting of greenhouse gas emissions. The scientific knowledge and methodologies to determine emissions factors and the processes to calculate or estimate quantities of greenhouse gas sources are still evolving, as are greenhouse gas reporting and assurance standards.

The emission factors included in the *Measuring Emissions: A guide for organisations* published by the Ministry for the Environment (MfE) have been used for the majority of our emissions reporting. Most commonly, the relevant emissions factor is applied to programme or project energy data to calculate emissions reductions. These emissions factors are periodically revised by MfE with changes to those factors occasionally being significant.

The following measures are most significantly impacted by the uncertainty disclosed above:

- Emissions reductions that will be delivered in 2023/24 from Government Investment in Decarbonising Industry (GIDI) funding committed during the financial year
- Emissions reductions delivered by GIDI projects completed during the financial year
- Estimated annual emissions reductions delivered by completed GIDI projects
- Energy and emissions saved by businesses as a result of purchasing new energy efficient appliances that are subject to Minimum Energy Performance Standards (MEPS) and Mandatory Energy Performance Labelling (MEPL)
- Avoided energy-related emissions resulting from EECA-funded business programmes
- Total energy and energy-related emissions addressed by completed Energy Transition Accelerator Programme opportunities assessments
- Transport emissions per person
- Energy and emissions saved by consumers as a result of purchasing new energy efficient appliances that are subject to MEPS and MEPL.

Note for many of our programmes and projects that reduce emissions, particularly in the business focus area (including the GIDI Fund), there are two types of emissions reductions that can be reported. The first is "actual" emissions reductions, which are available once a project has been commissioned (e.g. the technology has been turned on) and a sufficient monitoring and data collection period has been completed (usually 6-12 months is required for this). Until "actual" emissions reductions can be determined, EECA reports "expected" emissions reductions. "Expected" emissions reductions are an estimate, calculated using information supplied by the project recipient in their project application.

Further greenhouse gas disclosure information is provided alongside measures where relevant.

Surveys disclosure

Some of EECA's performance measures relate to data collected via surveys that are conducted by an independent research agency (which is disclosed in the notes of the relevant measures). EECA runs two different surveys: a biannual Business Monitor Survey of approximately 500 energy/transport decision makers within businesses and a quarterly Consumer Monitor Survey of approximately 750 consumers. Businesses and consumers are asked a series of questions to ascertain information about their attitudes and behaviours. For reported results, rolling 12-month averages are used to smooth out short-term fluctuations and highlight longer-term trends or cycles. It is important to note that attitudes and behaviours are subject to external influences (such as economic conditions and external social and political events), and therefore the results of the relevant performance measures can be impacted by externalities outside of EECA's control.

Budget significant initatives disclosure

On page 70, EECA has provided a table to identify reporting information on Budget significant initiatives from the previous three Budgets – Budget 2022, Budget 2021, and Budget 2020. Providing links to where reporting information can be found on Budget significant initiatives supports the ability of New Zealanders to trace what difference is being made with new investment of public funds announced at Budget.

Summary of results

Overall, we performed well in 2022/23. We made encouraging progress across our five strategic focus areas at a time when emissions reductions and movement towards a sustainable energy system is crucial to avoid the impacts of climate change and to meet New Zealand's emissions reduction targets.

Progress against our annual output measures

Our annual output measures seek a target result (e.g. 100,000 tonnes of emissions reductions). Of the 30 annual output measures for 2022/23, we fully achieved the target result for 19 measures and achieved over 90% of the target result for 7 measures. Detailed explanations are provided alongside each measure we did not fully achieve.

19	7	2	2
Achieved 100% of the target	Achieved over 90% of the target	Achieved less than 90% of the target	Results not yet available

Progress against our four-year outcome measures

Our four-year outcome measures seek a desired trend (e.g. an increase or decrease from the previous year). Of the 17 four-year outcome measures for 2022/23, we achieved the desired trend for 9 measures and provided positive qualitative results for a further 2 measures. Detailed explanations are provided alongside each measure where the desired trend was not achieved.

9	5	2	1
Achieved the desired trend	Did not achieve the desired trend	Qualitative results	Result not yet available

Productive and low-emissions business

Progress against our annual output measures

Under the 'Productive and Low Emissions Business' strategic focus area, we have three long-term strategic outcomes we are working towards:

- Businesses meet emissions reduction targets
- Businesses utilise low-emissions innovations and insights
- Businesses benefit from improved energy productivity.

Below are the key activities we undertook in 2022/23 to contribute to these outcomes, including the results for the annual performance targets we set and the cost of undertaking the activities.

Government Investment in Decarbonising Industry (GIDI) Fund

The GIDI Fund is one of EECA's largest programmes. It offers co-funding for projects that accelerate the reduction of emissions in industry and would not have happened at speed or scale without government action. In Budget 2022, the GIDI Fund received a funding boost to expand the number and types of initiatives that can be supported to help deliver on New Zealand's emissions reduction targets, particularly during Emissions Budget Period One (2022-2025) and Emissions Budget Period Two (2026-2030). We completed the design of the expanded GIDI Fund in 2022/23, which now has five main co-funding streams:

1. *GIDI Industrial:* co-funding for projects with medium to large industrial businesses that use process heat to help them switch from fossil fuels to clean energy.
2. *GIDI Partnerships (new, launched in 2022/23):* a long-term partnership approach with New Zealand's largest energy users to co-fund projects that reduce their reliance on fossil fuels and support the transition to clean and clever energy.
3. *GIDI Clean Tech (new, launching in 2023/24):* support for small to medium businesses in commercial and industrial sectors to install and upgrade to energy-efficient, low-emissions technologies and processes.
4. *GIDI Commercial Buildings (new, launching in 2023/24):* support for commercial building owners and tenants to increase energy efficiency and lower emissions by replacing fossil fuel boilers used for space and water heating in commercial buildings.
5. *GIDI Infrastructure (new, launching in 2023/24):* support for infrastructure upgrades that will accelerate the transition to net zero.

Strategic priority action	Annual output measure (Estimates of Appropriations)	2021/22 result	2022/23 result	Achieved
Accelerate the transition	The expanded GIDI fund is established following a design process.	**Target: N/A** (new measure) **Result: N/A** (new programme)	**Target: Achieved** **Result: Achieved.** The expanded GIDI Fund has been established, with all five expanded co-funding streams designed throughout the year.	✓
		Notes to the measure: • A design process involves engagement with relevant stakeholders. The fund is considered established when all co-funding streams are ready to launch as a pilot or into market.		

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Accelerate the transition	GIDI funding committed to projects	**Target: N/A** (new measure) **Result: $34.86 million**	**Target: $100 million** **Result: $50.90 million** of GIDI funding was committed to projects during the year, made up of: • $49.54 million of GIDI Industrial funding for Round Four ($16.23 million) and Round Five ($33.31 million) projects • $1.365 million of GIDI Clean Tech funding for pilots on commercial lighting systems ($1.001 million) and electric motor systems ($0.364 million). Two significant partnerships under the GIDI Partnerships stream were crucial to meeting this target. Despite working hard to progress these, we were not able to secure full funding commitment before 30 June 2023 (note an agreement was signed with New Zealand Steel for up to $140 million in May 2023 but it was still conditional at 30 June 2023).	✗
		Notes to the measure: • A funding amount is committed through a signed unconditional agreement between EECA and a project recipient. This measure is limited to GIDI agreements signed during the financial year.		
Accelerate the transition	Emissions reductions that will be delivered in 2023/24 from GIDI funding committed during the financial year	**Target: N/A** (new measure) **Result: 10,467 tCO_2e**	**Target: 175,000 tCO_2e** **Result: Result not yet available.** It is not possible to report the actual quantity of emissions reductions that will be delivered in 2023/24 with a sufficient level of certainty until a monitoring and data collection period has taken place following project commissioning (usually 6-12 months). As such, a result is unavailable for this measure. However, we can estimate expected emissions reductions in 2023/24 from GIDI funding committed during the financial year, which totals 16,321 tCO_2e made up of: • 16,233 tCO_2e from GIDI Industrial funding committed to projects in Round Four of funding (14,675 tCO_2e) and Round Five of funding (1,558 tCO_2e) • 88.1 tCO_2e from GIDI Clean Tech funding for pilots on commercial lighting systems (69.7 tCO_2e) and electric motor systems (18.4 tCO_2e). Emissions reductions are not expected to be realised as quickly as initially estimated given the current economic conditions, supply chain constraints (particularly due to the European energy crisis), shipping delays, labour shortages, and cost escalations, as well as the time taken to robustly design the expanded GIDI programme.	?
		Notes to the measure: • A funding amount is committed through a signed unconditional agreement between EECA and a GIDI project recipient. This measure is limited to projects contracted in the financial year. • For GIDI Industrial projects, information supplied by the project recipient in their project application is used to calculate an expected annual emissions reduction amount and a subsequent expected daily emissions reduction. For each project, the daily reduction is multiplied by the number of days between the project's expected completion date and 30 June 2024 to give the expected emissions reductions in 2023/24. • For GIDI Clean Tech projects, we calculate expected annual emissions reductions using expected electricity savings from the information submitted in the project application. We then calculate annual abatement for 2023/24 by pro-rating the expected abatements by the proportion of the year these projects are estimated to be operational in 2023/24.		

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Accelerate the transition	Emissions reductions delivered by GIDI projects completed during the financial year	**Target: N/A** (new measure) **Result: Zero** (no projects completed)	**Target: 110,000 tCO_2e** **Result: Result not yet available.** Throughout the financial year, 12 GIDI projects were commissioned. However, it is not possible to report the total delivered emissions reductions ('actual' emissions reductions) until a sufficient monitoring and data collection period has taken place for each project after commissioning (usually 6-12 months). At 30 June 2023, two of the 12 projects had completed this data collection period and had actual emissions reductions data available. As such, a total result is unavailable for this measure. However, in the measure below we have reported this actual emissions reduction data (alongside estimated expected emissions reductions for the other ten projects using application data).	?

Strategic priority action	Annual output measure (Estimates of Appropriations)	2021/22 result	2022/23 result	Achieved
Accelerate the transition	Estimated annual emissions reductions delivered by completed GIDI projects	**Target: N/A** (new measure) **Result: Zero** (no projects completed)	**Target: 100,000 tCO_2e** **Result: 113,866 tCO_2e** is estimated to be reduced annually by 12 GIDI Industrial projects that were commissioned during the financial year: • 'Actual' annual emissions reduction data is available for two commissioned projects (following a sufficient period of data collection). This totals 3,601 tCO_2e. • 'Expected' annual emissions reduction data is available for the other ten commissioned projects (sourced from project application data because a period of data collection has not yet taken place). This totals 110,265 tCO_2e. Note no projects from the other GIDI co-funding streams were commissioned during the financial year.	✓

Notes to the measure:

- A GIDI project is considered 'completed' on the date the project is commissioned (e.g. when a new technology is switched on). This is evidenced through a completed Commissioning Report from the project recipient, which is submitted to EECA.
- For GIDI Industrial projects, each project has an 'expected' annual emissions reduction figure estimated using information supplied by the project recipient in their project application. This estimated reduction figure is replaced by an 'actual' reduction figure once a sufficient data collection period has been completed (usually 6-12 months). Note EECA reports actual emissions reductions (instead of estimated emissions reductions) if the data is available, as we have done for the two projects above.

The Energy Transition Accelerator (ETA) Programme

The ETA programme co-funds the cost of an expert who completes an opportunities assessment report for large energy using businesses to provide them with a customised long-term emissions reduction plan that identifies technically and (where possible) economically viable options.

In 2022/23, EECA launched a regional version of the ETA programme (RETA) to support a well-informed and coordinated approach to regional decarbonisation. We develop RETA reports (roadmaps) to provide process heat users with coordinated information specific to the region to help them make more informed decisions on fuel choice and timing; improve fuel supplier confidence to invest in supply side infrastructure; and surface issues, opportunities, and recommendations.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Accelerate the transition	Number of RETA roadmaps completed, ready for implementation	**Target: N/A** (new measure) **Result: Zero** (new programme)	**Target: 6 roadmaps** **Result: 3 roadmaps** were completed for Southland, Mid-South Canterbury, and the West Coast. Three further roadmaps were close to completion, but they could not be finalised by 30 June 2023. This is because meaningful engagement and review with external parties (which is crucial to the reports being accurate and actionable) was more time consuming than expected when the new programme was designed.	✗

The Technology Demonstration Fund

The Technology Demonstration Fund supports the early adoption of proven technologies or innovative process improvement opportunities that are yet to be widely deployed in New Zealand. We co-fund projects that improve energy efficiency and/or reduce carbon emissions.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Investigate new opportunities	Number of technology demonstration projects co-funded that increase energy efficiency and/or emissions reductions (and number of highly replicable technologies demonstrated)	**Target: N/A** (changed measure) **Result: 17 projects and 3 highly replicable technologies**	**Target: 12 projects and 3 highly replicable technologies** **Result: 15 projects and 3 highly replicable technologies.** Highly replicable technologies co-funded include electric frost fans, horticulture electric machines, and heat pump space heating technologies. We also co-funded indoor cropping heat pump space heating, diesel displacement for tower crane energy, and electrification of gas process heating.	✓

Notes to the measure:

- A highly replicable technology is one determined by EECA to have significant further replication potential in the current market or through EECA's relevant programmes.
- The exceeded result reflects the quality, type and number of project applications received during the year.

Other Business Engagement Programmes

Our suite of Business Engagement Programmes for large New Zealand businesses increases energy efficiency and the use of renewable energy sources to unlock emissions reductions across the business sector. Programmes on offer include:

- *Energy Audits:* we co-fund the cost of a qualified energy auditor to work with businesses to evaluate how energy is being used and to find cost-effective opportunities to reduce energy costs and carbon emissions.
- *Energy Graduates:* we co-fund the employment of a newly-trained engineer or science graduate to help ensure businesses commit the time and resource needed to analyse how energy is being used and the best ways to make savings.
- *Energy Systems Optimisation:* we co-fund the cost of an expert to tune and calibrate equipment at a commercial or industrial site to increase the efficiency of energy systems.
- *Feasibility Studies and Business Cases:* we co-fund the cost of a study to test the feasibility of an energy efficiency or renewable energy project to help businesses build a strong business case with rigorous assessment, investigation and analysis that will give confidence that the project will be a success.
- *Monitoring and Targeting:* we co-fund the cost of an energy monitoring and targeting system to help businesses manage energy effectively and set targets, spot variances, and take actions that can save energy and emissions.

Strategic priority action	Annual output measure (Estimates of Appropriations)	2021/22 result	2022/23 result	Achieved
Accelerate the transition	Percentage of business co-funding committed to projects that increase business energy efficiency and the use of renewable energy, and reduce emissions	**Target: N/A** (new measure) **Result: 89.6%**	**Target: 95%** **Result: 86%** of the available business co-funding budget was committed to projects. The total budget was $1.85 million, of which $1.59 million was committed. The shortfall was due to changing circumstances and priorities of the project recipients, which lead to project cancellations (and funding subsequently returned to the budget).	Not achieved
		Notes to the measure: • A co-funding amount is committed through a signed unconditional agreement between EECA and a project recipient. This measure is limited to funding from business agreements signed in the financial year.		

Sector Decarbonisation Programme

The Sector Decarbonisation programme defines decarbonisation roadmaps for industry sectors and sub-sectors that are energy or carbon intensive in their energy use. We work with sector associations and technical experts to connect businesses in the sector with the latest innovation and best practice guidance to increase their energy efficiency and reduce their emissions.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Investigate new opportunities	Number of priority sectors for which a targeted resource is released to support businesses within the sector to commence their decarbonisation journey	**Target: N/A** (changed measure) **Result: Zero** (programme was being designed and established)	**Target: 5 priority sectors** **Result: 6 priority sectors** had a targeted resource (decarbonisation pathway) published during the year to support their decarbonisation: brewing, covered cropping, coffee roasting, commercial office building, aged care, and EPS plastic (expanded polystyrene). We prioritised the release of these resources and, as such, we were able to exceed the target.	Achieved
		Notes to the measure: • Sectors are prioritised based on the quantity of addressable stationary emissions, the number of businesses in the sector, whether there are existing sector associations, and willingness to engage.		

Equipment Energy Efficiency (E3) Programme

The E3 programme improves the electricity efficiency of products and appliances available for sale in New Zealand through the regulation of their energy efficiency. We develop and administer Minimum Energy Performance Standards (MEPS) which require products to meet minimum energy efficiency standards to be sold in New Zealand. In addition, we enforce Mandatory Energy Performance Labelling (MEPL) to help businesses compare the energy efficiency and running costs of different products when deciding what to buy. Our regulations save businesses money, reduce energy use and demand on the power grid, and cut related emissions. To support this work, we undertake compliance activities to ensure suppliers meet the requirements.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Accelerate the transition	Energy and emissions saved by businesses from purchasing new energy efficient appliances that are subject to MEPS and MEPL	**Target: 0.50 PJ** **Result: 0.70 PJ and 21,000 tCO_2e**	**Target: 0.50 PJ** **Result: 0.82 PJ and 25,100 tCO_2e** (equivalent to the yearly energy use of over 19,000 homes and $20.11 million in savings).	Achieved
		Notes to the measure: • This is also an Estimates of Appropriations performance measure. • The energy savings figure is the difference between a calculated baseline energy consumption of the commercial products included in the E3 programme (which assumes the E3 programme had not existed) and the products' energy consumption from sales data and registration information collected by EECA. By August of the reporting year, product manufacturers and importers are required to submit this sales data for the period of 1 April to 31 March as per section 9[3] of the Energy Efficiency Regulations 2002. Therefore, the savings reported for 2022/23 relate to the latest available sales period of 1 April 2021 to 31 March 2022. • Emissions reductions are calculated using the energy savings by applying emissions factors from the Ministry for the Environment. • The exceeded result reflects the increase in sales of a number of products during the reporting period. The largest was air conditioners (heat pumps) with sales up 47% (they also save the most energy out of any product category). In addition, regulations for refrigerated cabinets were amended resulting in an increase in scope and sales by 46%.		

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Accelerate the transition	Number of product classes that have a testing programme completed during the financial year to assess performance against MEPS/MEPL requirements	**Target: 2 product classes** **Result: 3 product classes**	**Target: 3 product classes** **Result: 3 product classes** were tested: clothes dryers, clothes washers, and electric motors.	✓
		Notes to the measure: • EECA selects and purchases products and sends them to an independent, internationally accredited laboratory. The lab conducts testing and produces a report with a pass or fail result. Further testing is conducted if a product fails the first round of testing, and enforcement action may result. The scope of this measure is limited to the completion of the first round of testing in the financial year.		

Infrastructure Reference Group 'Shovel-Ready' Projects

We support the Government's COVID-19 response and recovery through delivery oversight of four Infrastructure Reference Group shovel ready projects (note EECA was responsible for six projects in 2021/22, however two of these wer e transferred to Crown Infrastructure Partners in early 2022/23). The four projects relate to different strategic focus areas, and as such, the performance information is split out across the relevant focus areas. However, the data is combined and reported as a single measure result in the 'Summary of Results' section.

Strategic priority action	Annual output measure (Estimates of Appropriations)	2021/22 result	2022/23 result	Achieved
N/A	Percentage of projects agreed by relevant Ministers that are funded and delivered as per the agreed contract	**Target: 100%** (new measure) **Result: N/A** (project not yet delivered)	**Target: 100%** **Result: 100%** of projects at 30 June 2023 were operating within their agreed contractual obligations and timeframes, with funding delivered accordingly (note contracted project completion dates are all beyond 30 June 2023). This includes the Invercargill Decarbonisation Contestable Fund project, which falls within the 'productive and low-emission business' strategic focus area.	✓
N/A	Grant funding delivered to energy sector projects that support the rebuild of the economy following agreement by relevant Ministers and as per the agreed contract	**Target: Achieved** **Result: Achieved** with $0.082 million paid out	**Target: Achieved** **Result: Achieved.** $0.319 million of grant funding was paid out to the Invercargill Decarbonisation Contestable Fund project in 2022/23.	✓
N/A	Processes and procedures are developed to support infrastructure projects	**Target: N/A** (exemption applied) **Result: Achieved**	**Target: Achieved** **Result: Achieved.** Processes and procedures are in place for each of the four projects EECA oversees, including project management and reporting processes.	✓
		Notes to the measure: • Processes and procedures has been defined as regular project management and reporting.		

Progress against our four-year outcome measures

The activities undertaken in 2022/23 contributed to the three long-term strategic outcomes we are working towards in the 'Productive and Low Emissions Business' strategic focus area. Below are the results for the four-year measures that track our progress against those outcomes.

Strategic outcome	Four-year outcome measure (SOI)	Target	2020/21 (baseline)	2021/22 result	2022/23 result	Achieved
Businesses meet emissions reduction targets	Avoided energy-related emissions resulting from EECA-funded business programmes[9]	Increase from previous year	**62,100 tCO_2e**	**40,800 tCO_2e**	**Full result unavailable**[10]	?
		A result is not reported for this measure as only partial information is available due to the evolving nature of EECA's business programmes. Over the last two years, EECA's business programmes have expanded significantly, and the types of projects being supported are larger with longer delivery timeframes. Abatement from these larger projects is not able to be reported as 'avoided' until the project has been implemented and a sufficient monitoring and data collection period has taken place (this is typically 6-12 months after commissioning). This includes the majority of projects funded through EECA's largest and most significant business energy-related emissions reduction programme, the Government Investment in Decarbonising Industry (GIDI) fund. With EECA's most significant business projects not represented in the available data, a reported result would not be representative of the impact of EECA's business programmes. Therefore, a result is reported as not available for this measure. We expect this will also be the case for 2023/24. Note all available emissions reduction information for the GIDI fund is accessible in the measures at the beginning of this section.				
Businesses utilise low-emissions innovations and insights	Total energy and energy-related emissions addressed by completed Energy Transition Accelerator Programme opportunities assessments	Increase from previous year	**2,640 GWh** and **740,000 tCO_2e** total	**5,829 GWh** and **2,412,604 tCO_2e** total	**8,011 GWh** and **2,773,659 tCO_2e** total ↗	✓
		Notes to the measure: • An Energy Transition Accelerator opportunities assessment identifies opportunities (initiatives) that an organisation could implement to reduce energy and energy-related emissions. The "total energy and energy-related emissions addressed" in this measure refers to the sum of the energy and energy-related emissions that would be expected to be reduced if all opportunities identified in opportunities assessments were implemented. Emissions reductions are calculated by the third-party providers who complete the opportunities report using Ministry for the Environment emissions factors. • The exceeded result reflects the continued focus on completing opportunities assessments during the year.				
Businesses benefit from improved energy productivity	Energy savings per annum from improvements in the electricity efficiency of commercial products through the Minimum Energy Performance Standards (MEPS) and Mandatory Energy Performance Labelling (MEPL) programmes[11]	Increase from previous year	**0.51 PJ**	**0.70 PJ**	**0.82 PJ** ↗	✓
		Notes to the measure: • The energy savings figure is the difference between a calculated baseline energy consumption of the commercial products included in the E3 programme (which assumes the E3 programme had not existed) and the products' energy consumption from sales data and registration information collected by EECA. By August of the reporting year, product manufacturers and importers are required to submit this sales data for the period of 1 April to 31 March as per section 9[3] of the Energy Efficiency Regulations 2002. Therefore, the savings reported for 2022/23 relate to the latest available sales period of 1 April 2021 to 31 March 2022. • The exceeded result reflects the increase in sales of a number of products during the reporting period. The largest was air conditioners (heat pumps) with sales up 47% (they also save the most energy out of any product category). In addition, regulations for refrigerated cabinets were amended resulting in an increase in scope and sales by 46%.				

[9] The programmes included in scope of this measure are: Large Energy Users (Direct), Large Energy Users (Indirect), Government Investment in Decarbonising Industry (GIDI), Technology Demonstration, and Fuel Switch Enabler. At the conclusion of each project, an energy data collection period takes place within the organisation or using a service provider, and a subsequent report is submitted to EECA. EECA applies the relevant emissions factor to the energy savings from the report to calculate the emissions reductions. Emissions factors are sourced from Measuring Emissions: A guide for organisations published by the Ministry for the Environment. There is currently no independent verification process over all energy-related emissions reported to EECA by the funded businesses.

[10] Note for comparability purposes, if the current year results were reported on the same basis as the prior year, the result would be 9,700 tCO2e. This figure excludes the majority of avoided energy-related emissions associated with the GIDI fund as these are primarily estimates at this time. Actual GIDI results will become available over time after commissioning. However, we do not expect to have a full result available to report in 2023/24.

[11] In error, this measure in our Statement of Intent 2021-25 was described as annual energy use by commercial and industrial appliances. The description has been amended accordingly.

How much our activities cost

The cost of our activities under the ‘Productive and Low Emissions Business’ strategic focus area in 2022/23 is outlined in the table below, including a comparison to the budget from the start of the year and the cost last year.

	Budget 2022/23 $000	Actual 2022/23 $000	Actual 2021/22 $000
Operating revenue			
Energy Efficiency and Conservation			
Crown funding	10,297	12,178	6,985
Accelerating Energy Efficiency and Fuel Switching in Industry (GIDI 1.0)	100	100	200
Accelerating Energy Efficiency and Fuel Switching in Industry (GIDI 2.0)	4,268	4,268	0
Electricity levy funding	3,696	3,459	3,964
Gas levy funding	1,327	1,292	1,181
	19,688	21,297	12,330
Accelerating Energy Efficiency and Fuel Switching in Industry (GIDI 1.0)	53,550	22,635	10,667
Accelerating Energy Efficiency and Fuel Switching in Industry 2023-2027 (GIDI 2.0)	61,684	2,045	-
	115,234	45,977	10,667
Other revenue	725	1,370	1,099
Total operating revenue	**135,647**	**47,347**	**24,096**
Operating Expenses			
Financial and industry support expenses	122,024	28,535	13,730
Other operating expenses	14,315	13,562	7,642
Total operating expenses	**136,339**	**42,097**	**21,372**
Surplus/deficit	**(692)**	**5,250**	**2,724**

Efficient and low-emissions transport

Progress against our annual output measures

Under the ‘Efficient and Low-Emissions Transport’ strategic focus area, we have three long-term strategic outcomes we are working towards:

- New Zealand adopts low-emissions transport technologies and fuels
- Government establishes low-emissions transport policies and initiatives
- New Zealanders choose low-emissions mobility options.

Below are the key activities we undertook in 2022/23 to contribute to these outcomes, including the results for the annual performance targets we set and the cost of undertaking the activities.

Low Emission Transport Fund (LETF)

The LETF supports the demonstration and adoption of low-emissions transport technology, innovation, and infrastructure to accelerate the decarbonisation of the transport sector. We co-fund projects that stimulate the uptake of low-emission transport solutions, while providing additional knowledge and learnings for further replication to reduce greenhouse gas emissions from transport. The LETF focuses on projects related to moving people and/or goods primarily on roads, but also off-road and in the marine sectors.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Demonstrate low-emissions technologies	Percentage of the LETF co-funding budget (net) committed to projects	**Target: N/A** (changed measure) **Result: 100%**	**Target: 95%** **Result: 93.6%** of the available co-funding budget was committed to projects from Rounds Three, Six, Seven, Eight, Nine and Ten of funding. The total budget was $18.73 million, of which $17.53 million was committed. The shortfall was due to unexpected project withdrawals following the approval stage, and significant projects not being able to reach the contract signing stage by 30 June 2023.	
		Notes to the measure: • A co-funding amount is committed through a signed unconditional agreement between EECA and a project recipient. This scope of this measure is limited to LETF agreements signed in 2022/23.		

Strategic priority action	Annual output measure (Estimates of Appropriations)	2021/22 result	2022/23 result	Achieved
Demonstrate low-emissions technologies	Percentage of transport co-funding committed to projects that support the demonstration and adoption of low-emissions transport infrastructure, technologies, and fuels	**Target: 95%** **Result: 100%**	**Target: 95%** **Result: 93.6%** of the available co-funding budget was committed to projects. The total budget was $18.73 million, of which $17.53 million was committed. The shortfall was due to unexpected project withdrawals following the approval stage, and significant projects not being able to reach the contract signing stage by 30 June 2023.	
		Notes to the measure: • A co-funding amount is committed through a signed unconditional agreement between EECA and a project recipient. This scope of this measure is limited to LETF agreements signed during the financial year.		

The LETF has a strategic focus on increasing public electric vehicle (EV) charging infrastructure to support the uptake of electric vehicles. The Government has developed a national EV charging strategy (roadmap) which helps guide our investment through the LETF and improve cross-sectoral collaboration on the roll-out of infrastructure across New Zealand. We have been focusing on co-funding larger journey charging 'clusters' or 'hubs' with multiple high-powered EV chargers at strategic locations across the country.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Scale infrastructure	Percentage of the LETF co-funding budget (net) committed to public charging infrastructure projects	**Target: N/A** (changed measure) **Result: 49%**	**Target: 40%** **Result: 50%** of the available LETF co-funding budget was committed to public charging infrastructure projects. The total LETF budget for the year was $18.73 million, of which $9.30 million was committed to charging projects at 30 June 2023 ($1.56 million in Round Six, $4.18 million in Round Nine, and $3.56 million in Round Ten).	✓
		Notes to the measure: • A co-funding amount is committed through a signed unconditional agreement between EECA and a project recipient. This scope of this measure is limited to public charging related LETF agreements signed during the financial year. • The exceeded result reflects the strong focus on public charging infrastructure during the year.		
Scale infrastructure	Number of co-funded public journey charging clusters (identified by the charging roadmap)	**Target: N/A** (new measure) **Result: Zero** (new activity)	**Target: 1 cluster** **Result: 3 clusters** were co-funded in Bombay, Masterton, and Tūrangi.	✓
		Notes to the measure: • A co-funding amount is committed through a signed unconditional agreement between EECA and a project recipient. This scope of this measure is limited to public charging cluster LETF agreements signed during the financial year. • The exceeded result reflects the strong focus on public charging hubs during the year.		

Infrastructure Reference Group 'Shovel-Ready' Projects

We support the Government's COVID-19 response and recovery through delivery oversight of four Infrastructure Reference Group shovel ready projects (note EECA was responsible for six projects in 2021/22, however two of these wer e transferred to Crown Infrastructure Partners in early 2022/23). The four projects relate to different strategic focus areas, and as such, the performance information is split out across the relevant focus areas. However, the data is combined and reported as a single measure result in the 'Summary of Results' section.

Strategic priority action	Annual output measure (Estimates of Appropriations)	2021/22 result	2022/23 result	Achieved
N/A	Percentage of projects agreed by relevant Ministers that are funded and delivered as per the agreed contract	**Target: 100%** (new measure) **Result: N/A** (project not yet delivered)	**Target: 100%** **Result: 100%** of projects at 30 June 2023 were operating within their agreed contractual obligations and timeframes, with funding delivered accordingly (note contracted project completion dates are all beyond 30 June 2023). This includes the Minimum Viable Hydrogen Refuelling Network project which falls within the 'efficient and low-emissions transport' strategic focus area.	✓
N/A	Funding is loaned to energy sector projects that support the rebuild of the economy following agreement by relevant Ministers and as per the agreed contract	**Target: Achieved** **Result: Achieved** with $6.76 million loaned	**Target: Achieved** **Result: Achieved.** $2.16 million of funding was loaned to the Minimum Viable Hydrogen Refuelling Network project in 2022/23. Note EECA is acting as an agent and the loan is recognised under the Ministry of Business, Innovation and Employment's (MBIE) accounts.	✓
N/A	Processes and procedures are developed to support infrastructure projects	**Target: N/A** (exemption applied) **Result: Achieved**	**Target: Achieved** **Result: Achieved.** Processes and procedures are in place for each of the four infrastructure projects EECA oversees. This includes an EECA project manager for each project, monthly project meetings, and monthly and quarterly project reporting.	✓
		Notes to the measure: • Processes and procedures has been defined as regular project management and reporting.		

Progress against our four-year outcome measures

The activities undertaken in 2022/23 contributed to the three long-term strategic outcomes we are working towards in the 'Efficient and Low-Emissions Transport' strategic focus area. Below are the results for the four-year measures that track our progress against those outcomes.

Strategic outcome	Four-year outcome measure (SOI)	Target	2020/21 (baseline)	2021/22 result	2022/23 result	Achieved
New Zealand adopts low-emissions transport technologies and fuels	Number of low-emissions vehicles in the light fleet	Increase from previous year	**20,584** electric vehicles **6,771** plug-in hybrid vehicles	**33,262** electric vehicles **10,823** plug-in hybrid vehicles	**54,981** electric vehicles **20,453** plug-in hybrid vehicles ↗	✓

Notes to the measure:

- Data is sourced from the Ministry of Transport's Fleet Statistics (*Monthly Motor Vehicle Fleet* table) as at March 2023 (this ensures alignment with the baseline which used the latest data from March).
- The significant increase reflects the strong focus on promoting and incentivising light low-emissions vehicles across government during the year.

Strategic outcome	Four-year outcome measure (SOI)	Target	2020/21 (baseline)	2021/22 result	2022/23 result	Achieved
	Number of low-emissions vehicles in the heavy fleet (i.e. freight, buses, ferries)	Increase from previous year	**183** electric vehicles[12] **2** plug-in hybrid vehicles[13]	**327** electric vehicles **2** plug-in hybrid vehicles	**39** electric vehicles **2** plug-in hybrid vehicles ↗	✓

Notes to the measure:

- Data is sourced from the Ministry of Transport's Fleet Statistics (*Monthly Motor Vehicle Fleet* table) as at March 2023 (this ensures alignment with the baseline which used the latest data from March).
- The significant increase reflects the strong focus on promoting heavy low-emissions vehicles across government during the year.

Strategic outcome	Four-year outcome measure (SOI)	Target	2020/21 (baseline)	2021/22 result	2022/23 result	Achieved
	Carbon intensity of vehicles entering the light fleet	Decrease from previous year	**188.24 gCO_2e/km**[14]	**184.44 gCO_2e/km**	**150.67 gCO_2e/km** ↘	✓

Notes to the measure:

- Data is sourced from the Ministry of Transport's Fleet Statistics (*Quarterly Fleet Stats, Table 1e: Light registrations by average tailpipe CO_2*). We calculate the average carbon intensity for the financial year.
- The significant decrease reflects the strong focus on promoting and incentivising light low-emissions vehicles across government during the year.

[12] The baseline figure in our Statement of Intent 2021-25 was 203 electric vehicles. In error, we included hybrid vehicles. The figure has been amended.

[13] The baseline figure in our Statement of Intent 2021-25 was 33 plug-in hybrid vehicles. In error, we included non-plug-in hybrid vehicles. The figure has been amended.

[14] The baseline figure in our Statement of Intent 2021-25 was 169.9 gCO_2e. The source for this data is the Ministry of Transport and it has since updated its methodology. The figure has been amended and the new methodology has been adopted in following years.

Strategic outcome	Four-year outcome measure (SOI)	Target	2020/21 (baseline)	2021/22 result	2022/23 result	Achieved
Government establishes low-emissions transport policies and initiatives	Low-emissions transport policies and initiatives established by the Government	Qualitative measure.				?

This year, EECA was involved in the development of several low-emissions transport policies and initiatives. Of note:

- The National Electric Vehicle Charging Infrastructure Strategy
- The Hydrogen Roadmap
- Initiatives to improve the performance of electric vehicle chargers.

Notes to the measure:

- This measure was originally intended to be quantitative, however, the scope of the data is too broad to provide a meaningful count of the low-emissions policies and initiatives established by the Government. We have revised the measure to a qualitative description of some of the major low-emissions policies and initiatives established during the financial year that EECA was involved with.

Strategic outcome	Four-year outcome measure (SOI)	Target	2020/21 (baseline)	2021/22 result	2022/23 result	Achieved
New Zealanders choose low-emissions mobility options	Transport emissions per person	Decrease from baseline	**3.27 tCO_2e** per person	**2.58 tCO_2e** per person	**2.71 tCO_2e** per person ↘	✓

Notes to the measure:

- Transport emissions data is sourced from the Ministry for the Environment's Greenhouse Gas Inventory – the official annual report of all anthropogenic emissions and removals of greenhouse gases (GHGs) in New Zealand. We have extracted 2021 *category 1.A.3* transport emissions data (the latest data available in the inventory).
- Population data is sourced from Statistics New Zealand as at December 2021 to align with the above inventory data.
- The baseline result is an average of the data from 2000 to 2018 (the latest year available). It was calculated this way because there was a high level of fluctuation observed year-on-year, which could be smoothed out with an average. This is also the reason the desired trend is a decrease from the baseline (as opposed to a decrease from the previous year): we determined that the historic fluctuations meant it was unreasonable to expect the result to be able to decrease year-on-year.
- There is a level of inherent uncertainty in reporting greenhouse gas emissions. The scientific knowledge and methodologies to determine emissions factors and the processes to calculate or estimate quantities of GHG sources are still evolving, as are GHG reporting and assurance standards. The full disclosure on the New Zealand Greenhouse emissions, including inventory uncertainties, methodologies and assumptions used in the calculation, are included in the latest inventory report: *New Zealand's Greenhouse Gas Inventory 1990–2021* (Ministry for the Environment). Emissions estimates across the entire time series are, at certain points in time, recalculated due to improvements introduced to the inventory.
- The significant decrease from the baseline likely reflects the strong focus on promoting low-emissions mobility options across government during the year.

How much our activities cost

The cost of our activities under the 'Efficient and Low Emissions Transport' strategic focus area in 2022/23 is outlined in the table below, including a comparison to the budget from the start of the year and the cost last year.

	Budget 2022/23 $000	Actual 2022/23 $000	Actual 2021/22 $000
Operating revenue			
Energy Efficiency and Conservation			
Crown funding	3,577	3,518	2,394
Low Emissions Transport Fund	9,500	9,500	6,760
Petroleum levy funding	10,500	10,500	7,500
	23,577	23,518	16,654
Grants scheme for investment in infrastructure projects (IRG)	4,000	-	270
	27,577	23,518	16,924
Other revenue	-	982	-
Total operating revenue	**27,577**	**24,500**	**16,924**
Operating Expenses			
Financial and industry support expenses	22,730	9,244	14,598
Other operating expenses	5,015	4,891	3,982
Total operating expenses	**27,745**	**14,135**	**18,580**
Surplus/deficit	**(168)**	**10,365**	**(1,656)**

Energy efficient homes

Progress against our annual output measures

Under the 'Energy Efficient Homes' strategic focus area, we have two long-term strategic outcomes we are working towards:

- New Zealanders live in energy efficient homes that are warm, dry, and healthy
- New Zealand households benefit from an efficient, well-integrated and resilient renewable energy system.

Below are the key activities we undertook in 2022/23 to contribute to these outcomes, including the results for the annual performance targets we set and the cost of undertaking the activities.

Warmer Kiwi Homes Programme

The Warmer Kiwi Homes Programme provides grant funding to low-income households for home improvements that achieve energy savings and other major co-benefits like better health outcomes. We work with contracted installers who install ceiling and underfloor insultation, heat pumps, and efficient wood or pellet burners in homes. We regularly audit samples of installations to check they meet our standards.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Improve existing homes	Number of insulation or heating retrofits installed in qualifying homes	**Target: 28,000 retrofits** **Result: 25,957 retrofits**	**Target: 26,500 retrofits** **Result: 25,074 retrofits.** The shortfall arose primarily due to: • demand being impacted by warmer weather coming earlier than usual following winter in 2022 • a constrained capacity environment (two of our largest suppliers were prioritising work for Kāinga Ora).	

Notes to the measure:

- This is also an Estimates of Appropriations performance measure.
- The target decrease reflects the available funding for the year.
- Low-income homeowner eligibility is determined by meeting one of three criteria: health referral, deprivation index or community services card. The applicant must also be an owner occupier of a house built before 2008.
- There can be a delay of several weeks between an installation occurring and when the documentation and claim is submitted by Service Providers and accepted through our system. Therefore, EECA collects accrual information from Service Providers for retrofits that have or will be completed on or before 30 June 2023 that will not be in the system by the end of the year, which is included in the reported result.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Improve existing homes	Percentage of sampled retrofits that comply with the installation quality standard	**Target: 95%** **Result: 95.5%**	**Target: 95%** **Result: 98.5%** of sampled retrofits complied with the insulation or heating standard (97.6% for insulation installs and 100% for heating installs).	✓

Notes to the measure:

- This is also an Estimates of Appropriations performance measure.
- Audits are completed by an independent auditor who audits a percentage (~5%) of the total number of retrofits during the financial year. Audits are based on individual Service Provider risk ratings; those with historical compliance issues will be audited at a higher rate than those that have consistently demonstrated high quality work.
- A four-stage auditing criteria applies for heat pump and insulation retrofits where each audited retrofit receives a pass, conditional pass, fail, or critical fail result. For this measure, both pass results count as compliant, and both fail results count as non-compliance. This approach was only adopted for heat pumps in January 2022 (replacing a simplistic pass or fail criteria) and, as such, was implemented retrospectively to installs already completed in the 2021/22 financial year.
- Wood and pellet burner retrofits are excluded from auditing as their installations are controlled by the Building Consent process – they must be installed to the building code to receive a Code of Compliance.

Equipment Energy Efficiency (E3) Programme

The E3 programme improves the electricity efficiency of products and appliances available for sale in New Zealand through the regulation of their energy efficiency:

- We develop and administer Minimum Energy Performance Standards (MEPS) which require products to meet minimum energy efficiency standards to be sold in New Zealand
- We enforce Mandatory Energy Performance Labelling (MEPL) to help consumers compare the energy efficiency and running costs of different products when deciding what to buy
- We undertake compliance activities to ensure suppliers meet the requirements.

The programme saves businesses money, reduces energy use and demand on the power grid, and cuts related emissions.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Maintain and extend regulatory activities	Energy and emissions saved by consumers as a result of purchasing new energy efficient appliances that are subject to MEPS and MEPL	**Target: 0.60 PJ** **Result: 0.86 PJ and 26,000 tCO_2e**	**Target: 0.70 PJ** **Result: 0.93 PJ and 28,400 tCO_2e** (equivalent to the yearly energy use of over 21,000 homes and $22.75 million in savings).	✓

Notes to the measure:

- This is also an Estimates of Appropriations performance measure.
- The energy savings figure is the difference between a calculated baseline energy consumption of the residential products included in the E3 programme (which assumes the E3 programme had not existed) and the products' energy consumption from sales data and registration information collected by EECA. By August of the reporting year, product manufacturers and importers are required to submit this sales data for the period of 1 April to 31 March as per section 9[3] of the Energy Efficiency Regulations 2002. Therefore, the savings reported for 2022/23 relate to the latest available sales period of 1 April 2021 to 31 March 2022.•Emissions reductions are calculated using the energy savings by applying emissions factors from the Ministry for the Environment.
- The target increase reflects the increasing trend in savings.
- The exceeded result reflects the increase in sales of a number of products during the reporting period. The largest was air conditioners (heat pumps) with sales up 47% (they also save the most energy out of any product category). We also continued to see increases in sales of computers and computer monitors.

Publicly Available Specifications (PAS)

We develop Publicly Available Specifications (PAS) in conjunction with Standards New Zealand. These are voluntary documents that provide best practice guidance and a technical specification for the energy performance of different technologies.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Deliver standards and guidance	Number of new or revised Publicly Available Specifications (PAS) published	**Target: N/A** (changed measure) **Result: 1 PAS**	**Target: 2 PAS** **Result: 3 PAS** were published. In September 2022, a new PAS called Smart Homes Guidelines was published. In June 2023, two revised PAS were published: *Commercial electric vehicle (EV) charging and Residential electric vehicle (EV) charging.*	Achieved
		Notes to the measure: • This is also an Estimates of Appropriations performance measure (the target was 3 PAS, which was met). • The exceeded result reflects our focus during the year on providing updated EV charging guidelines as soon as possible.		

Infrastructure Reference Group 'Shovel-Ready' projects

We support the Government's COVID-19 response and recovery through delivery oversight of four Infrastructure Reference Group shovel ready projects (note EECA was responsible for six projects in 2021/22, however two of these were transferred to Crown Infrastructure Partners in early 2022/23). The four projects relate to different strategic focus areas, and as such, the performance information is split out across the relevant focus areas. However, the data is combined and reported as a single measure result in the 'Summary of Results' section.

Strategic priority action	Annual output measure (Estimates of Appropriations)	2021/22 result	2022/23 result	Achieved
N/A	Percentage of projects agreed by relevant Ministers that are funded and delivered as per the agreed contract	**Target: 100% Result: N/A** (project not yet delivered)	**Target: 100%** **Result: 100%** of projects at 30 June 2023 were operating within their agreed contractual obligations and timeframes, with funding delivered accordingly (note contracted project completion dates are all beyond 30 June 2023). This includes the Minimum Viable Hydrogen Refuelling Network project falls within the 'efficient and low-emissions transport' strategic focus area.	Achieved
N/A	Grant funding delivered to energy sector projects that support the rebuild of the economy following agreement by relevant Ministers and as per the agreed contract	**Target: Achieved** **Result: Achieved** with $0.20 million and $0.15 million paid out to the Northland and Otago Home Energy Retrofit projects respectively	**Target: Achieved** **Result: Achieved.** Grant funding of $0.854 million and $0.535 million was paid out to the Northland and Otago Home Energy Retrofit projects respectively in 2022/23.	Achieved
N/A	Processes and procedures are developed to support infrastructure projects	**Target: N/A** (exemption applied) **Result: Achieved**	**Target: Achieved** **Result: Achieved.** Processes and procedures are in place for each of the four infrastructure projects EECA oversees. This includes an EECA project manager for each project, monthly project meetings, and monthly and quarterly project reporting.	Achieved
		Notes to the measure: • Processes and procedures has been defined as regular project management and reporting.		

Progress against our four-year outcome measures

The activities undertaken in 2022/23 contributed to the three long-term strategic outcomes we are working towards in the 'Energy Efficient Homes' strategic focus area. Below are the results for the four-year measures that track our progress against those outcomes.

Strategic outcome	Four-year outcome measure (SOI)	Target	2020/21 (baseline)	2021/22 result	2022/23 result	Achieved
New Zealanders live in energy efficient homes that are warm, dry, and healthy	Energy use of residential appliances per capita	Decrease from previous year	**1.60 PJ / 100,000 people** (restated - see notes to the measure)	**1.60 PJ / 100,000 people** (restated - see notes to the measure)	**1.63 PJ / 100,000 people**	Not achieved
		The result has only slightly increased from the previous year. The latest energy use and population data for this measure is from 2021, and it is possible Auckland's 2021 COVID-19 lockdown and the ongoing impact of more people working from home more frequently has continued to cancel out gains from residential appliance efficiency. Notes to the measure: • Energy use data for this measure is sourced from EECA's Energy End Use Database which incorporates the latest 2021 energy use data from the Ministry of Business, Innovation and Employment's (MBIE). MBIE has recently updated its data to reallocate petrol and diesel for recreational marine into the residential sector, and retrospectively applied this to previous years. As such, the baseline for 2020/21 and result for 2021/22 have been updated (from 1.28 PJ to 1.60 PJ). • Population data is sourced from Statistics New Zealand as at December 2021 to align with the above data.				
	Total number of insulation and heating retrofits installed in homes through the Warmer Kiwi Homes programme	Increase from previous year	**63,803** retrofits	**95,009** retrofits	**118,462** retrofits	Achieved
		Notes to the measure: • There can be a delay of several weeks between an installation occurring and when the documentation and claim is submitted by Service Providers and accepted through our system. Therefore, EECA collects accrual information from Service Providers for retrofits that have or will be completed on or before 30 June 2023 that will not be in the system by the end of the year. • The significantly increased result reflects the continued significant support by government during the year for insulation and heating retrofits.				
New Zealand households benefit from an efficient, well-integrated, and resilient renewable energy system	Energy savings per annum from improvements in the electricity efficiency of household products through Minimum Energy Performance Standards (MEPS) and Mandatory Energy Performance Labelling (MEPL)	Increase from previous year	**0.71 PJ**	**0.86 PJ**	**0.93 PJ**	Achieved
		Notes to the measure: • The energy savings figure is the difference between a calculated baseline energy consumption of the residential products included in the E3 programme (which assumes the E3 programme had not existed) and the products' energy consumption from sales data and registration information collected by EECA. By August of the reporting year, product manufacturers and importers are required to submit this sales data for the period of 1 April to 31 March as per section 9[3] of the Energy Efficiency Regulations 2002. Therefore, the savings reported for 2022/23 relate to the latest available sales period of 1 April 2021 to 31 March 2022. • The exceeded result reflects the increase in sales of a number of products during the reporting period. The largest was air conditioners (heat pumps) with sales up 47% (they also save the most energy out of any product category). We also continued to see increases in sales of computers and computer monitors.				

How much our activities cost

The cost of our activities under the 'Energy Efficient Homes' strategic focus area in 2022/23 is outlined in the table below, including a comparison to the budget from the start of the year and the cost last year.

	Budget 2022/23 $000	Actual 2022/23 $000	Actual 2021/22 $000
Operating revenue			
Energy Efficiency and Conservation			
Crown funding	833	989	572
Electricity levy funding	1,348	1,671	1,324
Gas levy funding	93	143	69
	2,274	2,803	1,965
Grant scheme for investment in infrastructure projects (IRG)	3,544	1,390	350
Grant scheme for Warm Dry Homes 2022-2027	67,360	64,389	62,316
Operational support of the investment in infrastructure projects (IRG)	-	-	105
Implementation of grant scheme for Warm Dry Homes 2022-2027	5,070	4,921	5,826
	78,248	73,503	70,562
Other revenue	750	2,192	261
Total operating revenue	**78,998**	**75,695**	**70,823**
Operating Expenses			
Financial and industry support expenses	71,654	67,235	62,926
Other operating expenses	7,369	10,654	7,817
Total operating expenses	**79,023**	**77,889**	**70,743**
Surplus/deficit	**(25)**	**(2,194)**	**80**

Government leadership

Progress against our annual output measures

Under the 'Government Leadership' strategic focus area, we have three long-term strategic outcomes we are working towards:

- Government agencies transition to a low-emissions economy
- New Zealand benefits from low-emissions transition lessons
- Government agencies collaborate on low-emissions policies and initiatives.

Below are the key activities we undertook in 2022/23 to contribute to these outcomes, including the results for the annual performance targets we set and the cost of undertaking the activities.

State Sector Decarbonisation Fund (SSDF)

The State Sector Decarbonisation Fund provides co-funding for projects that reduce carbon emissions in the State sector, including fossil-fuelled boiler replacements, electric vehicles, energy efficient chillers, and LED lighting. The fund supports the Carbon Neutral Government Programme (CNGP), which aims to make organisations within the public sector carbon neutral from 2025.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Take direct action	All unallocated SSDF funding is committed to State sector decarbonisation projects	**Target: Achieved** **Result: Not achieved** ($85.14 million remaining)	**Target: Achieved** **Result: Achieved.** All unallocated SSDF funding ($85.14 million) was committed to State sector decarbonisation projects, meaning the fund has now been fully committed.	✓
		Notes to the measure: • A funding amount is committed through a Ministerial approval document signed by CNGP Ministers. This measure is limited to funding approved in the financial year.		
	Percentage of project milestones that are met through our monitoring of State sector organisations	**Target: 80%** **Result: 93.8%**	**Target: 80%** **Result: 98.5%** of project milestones were met through EECA's monitoring of state sector organisations.	✓
		Notes to the measure: • The exceeded result reflects our strong focus during the year on closely monitoring existing projects and supporting milestones to be met.		

In addition to the State Sector Decarbonisation Fund, EECA supports the CNGP through support for battery electric vehicle leasing, fleet optimisation plans, charging assessments, and fleet audits. During 2022/23, we co-funded the lease of 353 battery electric vehicles, the install of 323 electric vehicle chargers, and the completion of two charging assessments and a fleet optimisation study.

Other Public Sector Engagement Programmes

Our suite of other Public Sector Engagement Programmes aims to increase energy efficiency and the use of renewable energy sources to unlock emissions reductions across the public sector. Programmes on offer include:

- *The Energy Transition Accelerator (ETA) Programme* – we co-fund the cost of an expert who completes an Opportunities Assessment Report for public sector organisations to provide them with a customised long-term emissions reduction plan that identifies technically and (where possible) economically viable options for emissions reductions.
- *Energy Audits* – we co-fund the cost of a qualified energy auditor to work with public sector organisation to evaluate how energy is being used and to find cost-effective opportunities to reduce energy costs and carbon emissions.
- *Energy Graduates* – we co-fund the employment of a newly-trained engineer or science graduate to help ensure public sector organisations commit the time and resource needed to analyse how energy is being used and the best ways to make savings.
- *Energy Systems Optimisation* – we co-fund the cost of an expert to tune and calibrate equipment at a public sector organisation's commercial or industrial site to increase the efficiency of the energy systems.
- *Feasibility Studies and Business Cases* – we co-fund the cost of a study to test the feasibility of an energy efficiency or renewable energy project to help public sector businesses build a strong business case with rigorous assessment, investigation and analysis that will give to give confidence that the project will be a success.
- *Monitoring and Targeting* – we co-fund the cost of an energy monitoring and targeting system to help public sector organisations manage energy effectively and set targets, spot variances, and take actions that can save energy and emissions.
- *Crown Loans Scheme* – we offer zero interest loans to public sector organisations to fund energy efficiency and emissions reduction projects (fully or partially).

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Take direct action	Amount of loan funding provided to enable public sector organisations to save energy and reduce energy-related emissions	**Target: $1.5 million** **Result: $3.5 million**	**Target: $2.0 million** **Result: $3.3 million** in Crown loans was paid out to 36 projects.	✓

Notes to the measure:

- This is also an Estimates of Appropriations performance measure.
- The target increase reflects the available funding for the year.
- The exceeded result reflects the high number of successful applications we received during the year.

Insights Programme

We have a key role to play as an authority on energy efficiency, energy conservation, and the use of renewable energy. We share the insights from our research, technical expertise, and programmes through market communications (like research reports, insights reports, or case studies) to help accelerate the transition to a low-emissions economy.

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Learn and share as an authority	Number of market communications delivered that integrate insights from completed EECA-supported low-emissions projects to support large-scale uptake of low-emissions technologies and behaviours	**Target: N/A** (new measure) **Result: 5 communications**	**Target: 6 communications** **Result: 7 communications** were published: • Two Regional Energy Transition Accelerator (RETA) reports (Southland and Mid-South Canterbury) • Two sector decarbonisation pathways (covered cropping and brewing) • Three insights publications (industrial heat pumps for process heat, biomass boilers for industrial process heat, and the business of good decarbonisation).	✓

Progress against our four-year outcome measures

The activities undertaken in 2022/23 contributed to the three long-term strategic outcomes we are working towards in the 'Government Leadership' strategic focus area. Below are the results for the four-year measures that track our progress against those outcomes.

Strategic outcome	Four-year outcome measure (SOI)	Target	2020/21 (baseline)	2021/22 result	2022/23 result	Achieved
Government agencies transition to a low-emissions economy	Energy-related emissions tracked by the Carbon Neutral Government Programme (CNGP)	Decrease from previous year	**353,894 tCO_2e** per year (Tranche 1 agencies only)	Data unavailable	**282,933 tCO_2e** per year (Tranche 1 agencies only)	✓

Notes to the measure:

- Emissions data is supplied by the Ministry for the Environment (who leads the Carbon Neutral Government Programme), which EECA then analyses to exclude any emissions that are not energy-related.
- Under the Carbon Neutral Government Programme, Tranche 1 agencies (government departments, departmental agencies, and the non-public service departments in the executive branch) are required to submit their emissions data in December each year, starting from December 2022. Tranche 2 agencies (Crown agents) will be required to submit their emissions data from December 2023. As a result of these timeframes, data was not available for 2021/22 and only Tranche 1 data is available for 2022/23. Both Tranche 1 and Tranche 2 data will be reported in 2023/24.
- In the 2021/22 Annual Report, a meaningful baseline was unavailable to report. However, when agencies submitted their emissions data in December 2022, they were also required to submit a base year of emissions data for comparison. This base year data has been aggregated to provide an updated baseline result.

Strategic outcome	Four-year outcome measure (SOI)	Target	2020/21 (baseline)	2021/22 result	2022/23 result	Achieved
New Zealand benefits from low-emissions transition lessons	Percentage of businesses that know how to find information to support them to reduce their energy-related emissions	Increase from previous year	**32%**	**44%**	**39%** ↘	⊗
		Our monitoring has shown that the state of the New Zealand economy over last six months of the financial year had a strong impact on business engagement, with a focus on short-term cost savings over energy-related decarbonisation. In addition, our business campaign was delayed in its delivery to market (which is a key tool in driving New Zealand businesses to knowledge sources and actions).				
		Notes to the measure: • Data is sourced from EECA's biannual Business Monitor Survey of approximately 500 energy/transport decision makers within businesses (conducted by an independent research agency). The survey asks: *How much do you agree/disagree that you know where to access information about how to reduce your business's carbon emissions?* 'Agree' or 'strongly agree' responses are included. • The result is a 12-month rolling average of the twice-yearly survey responses. Rolling averages are used to smooth out short-term fluctuations and highlight longer-term trends or cycles. • We believe surveying every six months is too infrequent to allow us to monitor and anticipate trends. We will resolve this with higher frequency business audience monitoring in 2023/24.				
Government agencies collaborate on low-emissions policies and initiatives	Multi-agency low-emissions government policies and initiatives developed	Qualitative measure.				?
		We collaborated with other government agencies on several policies and initiatives this year, including the National Energy Strategy; the New Zealand Energy Efficiency and Conservation Strategy (NZEECS); the National Direction on Industrial Greenhouse Gas Emissions; the reform of the Energy Efficiency and Conservation regulatory regime; the National Electric Vehicle Charging Infrastructure Strategy; and the Hydrogen Roadmap.				
		Notes to the measure: • This measure was originally intended to be quantitative, however, the scope of the data is too broad to provide a meaningful count of the number of low-emissions government policies and initiatives. We have revised the measure to a qualitative description of the major cross-agency initiatives EECA was involved in during the financial year.				

How much our activities cost

The cost of our activities under the 'Government Leadership' strategic focus area in 2022/23 is outlined in the table below, including a comparison to the budget from the start of the year and the cost last year.

	Budget 2022/23 $000	Actual 2022/23 $000	Actual 2021/22 $000
Operating revenue			
Energy Efficiency and Conservation			
Crown funding	2,048	715	2,042
Support for decarbonisation in the state sector (SSDF)	4,800	1,979	3,770
Carbon Neutral Government Programme	11,182	13,343	6,085
Electricity levy funding	256	170	212
Gas levy funding	80	65	50
	18,366	16,272	12,159
Grants scheme for investment in infrastructure projects (IRG)	2,243	320	82
Operational support of the investment in infrastructure projects (IRG)	-	-	125
	20,609	16,592	12,366
Other revenue	-	1,274	-
Total operating revenue	**20,609**	**17,866**	**12,366**
Operating Expenses			
Financial and industry support expenses	16,582	7,183	2,634
Other operating expenses	4,027	3,207	4,211
Total operating expenses	**20,609**	**10,390**	**6,845**
Surplus/deficit	**-**	**7,476**	**5,521**
Non-departmental capital expenses			
Crown energy efficiency	2,000	3,334	3,500
Total capital funding	**2,000**	**3,334**	**3,500**

Engage hearts and minds

Progress against our annual output measures

Under the 'Engage Hearts and Minds' strategic focus area, we have three long-term strategic outcomes we are working towards:

- New Zealanders change their climate-related attitudes and behaviours
- Businesses change their attitudes and behaviours to reduce emissions
- Government's low-emissions policies and regulations are bold and credible.

Below are the key activities we undertook in 2022/23 to contribute to these outcomes, including the results for the annual performance targets we set and the cost of undertaking the activities.

Public Marketing and Communications

We have a responsibility to promote energy efficiency, energy conservation, and renewable energy, including energy-related decarbonisation. We encourage New Zealanders and businesses to understand their energy use and related emissions and the practical actions they can take to reduce them.

Our focus is on delivering low-emissions marketing and communications material and sharing information and resources (primarily on our websites[15]) for individuals and businesses to access. *Gen Less* is an EECA platform for the delivery of this material, which seeks to motivate and inspire individuals, communities, and businesses to live and work in ways that use less energy and produce less energy-related emissions.

We track our progress through a biannual Business Monitor Survey of approximately 500 energy/transport decision makers within businesses and a quarterly Consumer Monitor Survey of approximately 750 consumers (conducted by an independent research agency).

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Take direct action	Percentage of individuals and businesses that are aware of the Gen Less brand	**Target: 16% of individuals and 16% of businesses** **Result: 25% of individuals and 35% of businesses**	**Target: 24% of individuals and 35% of businesses** **Result: 26% of individuals and 34% of businesses** We surpassed the awareness target for individuals, however, the result for business in the second half of the year underperformed. We experienced a drop in business awareness of 9 percentage points, going against previous trends. Our business-focused marketing campaign was later to market than planned (launched 1 May 2023), which is our key tool in driving awareness of Gen Less with businesses. The regular in-field monitoring was conducted mid-May 2023, which was too close to launch to pick up changes from the new campaign.	
		Notes to the measure: • The target increased to reflect the increasing trend in awareness. • The quarterly Consumer Monitor Survey and biannual Business Monitor Survey ask: *Which of the following have you heard of? Which of the following logos have you seen before?* Responses that recognise Gen Less are included. • The result is a 12-month rolling average of the quarterly and biannual survey responses. Rolling averages are used to smooth out short-term fluctuations and highlight longer-term trends or cycles. • We believe surveying businesses every six months is too infrequent to allow us to monitor and anticipate trends. We will resolve this with higher frequency business monitoring in 2023/24.		

[15] www.eeca.govt.nz and www.genless.govt.nz

Strategic priority action	Annual output measure (SPE)	2021/22 result	2022/23 result	Achieved
Inspire long-term behavioural shifts	Percentage of businesses actively seeking to reduce the impact of their energy use and transport choices	**Target: 37%** **Result: 37%**	**Target: 37%** **Result: 35%** Over the last six months of the year, the result dropped 5 percentage points. We believe this is a combined impact of the state of the New Zealand economy over the past six months, which has driven down business confidence and created an environment where businesses are focusing on short-term core operations over longer-term issues (such as decarbonisation). Secondly, our business-focused marketing campaign was later to market than planned, which is a key tool in driving action amongst New Zealand businesses.	
		Notes to the measure: • The biannual Business Monitor Survey asks: *Which of the following actions has your business taken in order to reduce your impact on climate change?* Responses that reduce the impact of energy use and transport choices are included. • The result is a 12-month rolling average of the biannual survey responses. Rolling averages are used to smooth out short-term fluctuations and highlight longer-term trends or cycles. • We believe surveying businesses every six months is too infrequent to allow us to monitor and anticipate trends. We will resolve this with higher frequency business monitoring in 2023/24.		
Inspire long-term behavioural shifts	Percentage of individuals that understand the use of petrol and diesel-powered vehicles is one of the biggest contributors to New Zealand's energy-related emissions	**Target: N/A** (changed measure) **Result: 41%**	**Target: 42%** **Result: 41%** We had a significant drop in the third quarter result that could not be meaningfully explained through analysis of the data. While the fourth quarter result was strong at 44% (and back in line with the trend), it was not enough to lift the 12-month rolling average to 42%.	
		Notes to the measure: • The quarterly Consumer Monitor Survey asks: *Which of these actions do you think would have the greatest impact on reducing climate change in New Zealand?* Responses that select reducing our use of petrol or diesel-powered vehicles are included. • The result is a 12-month rolling average of the quarterly survey responses. Rolling averages are used to smooth out short-term fluctuations and highlight longer-term trends or cycles. • We believe surveying businesses every six months is too infrequent to allow us to monitor and anticipate trends. We will resolve this with higher frequency business monitoring in 2023/24.		

Progress against our four-year outcome measures

The activities undertaken in 2022/23 contributed to the three long-term strategic outcomes we are working towards in the ‘Engage Hearts and Minds’ strategic focus area. Below are the results for the four-year measures that track our progress against those outcomes.

<table>
<tr><th>Strategic outcome</th><th>Four-year outcome measure (SOI)</th><th>Target</th><th>2020/21 (baseline)</th><th>2021/22 result</th><th>2022/23 result</th><th>Achieved</th></tr>
<tr><td rowspan="3">New Zealanders change their climate-related attitudes and behaviours</td><td rowspan="3">Percentage of people who agree we need to make changes to our energy use to address climate change, even if it means a change to our current lifestyle</td><td>Increase from previous year</td><td>72%</td><td>71%</td><td>69% ↘</td><td>Not achieved</td></tr>
<tr><td colspan="5">While the result tracked well earlier in the financial year, we saw a drop of 5 percentage points in the third quarter (the largest single drop since we started measuring this metric).
We note that this period saw a number of consumer behavioural metrics drop in relation to energy-related actions to address climate change, and we believe this is due to the direct increase in concern of the cost of living.</td></tr>
<tr><td colspan="5">Notes to the measure:
• The quarterly Consumer Monitor Survey asks: How much do you agree or disagree that: We need to make changes to our energy use to address climate change, even if it means a change to our current lifestyle. ‘Agree’ or ‘strongly agree’ responses are included.
• The result is a 12-month rolling average of the quarterly survey responses. Rolling averages are used to smooth out short-term fluctuations and highlight longer-term trends or cycles.</td></tr>
<tr><td rowspan="3">Businesses change their attitudes and behaviours to reduce emissions</td><td rowspan="3">Percentage of businesses actively seeking to reduce the impact of their energy use and transport choices</td><td>Increase from previous year</td><td>33%</td><td>37%</td><td>35% ↘</td><td>Not achieved</td></tr>
<tr><td colspan="5">Over the last six months of the financial year, the result dropped 5 percentage points. We believe this was influenced by state of the New Zealand economy during this time, which has driven down business confidence and created an environment where businesses are focusing on short-term core operations over longer-term issues such as decarbonisation. In addition, our business campaign was delayed in its delivery to market, which is a key tool in driving action amongst New Zealand businesses.</td></tr>
<tr><td colspan="5">Notes to the measure:
• The biannual Business Monitor Survey asks: Which of the following actions has your business taken in order to reduce your impact on climate change? Responses that reduce the impact of energy use and transport choices are included.
• The result is a 12-month rolling average of the biannual survey responses. Rolling averages are used to smooth out short-term fluctuations and highlight longer-term trends or cycles.
• We believe surveying every six months is too infrequent to allow us to monitor and anticipate trends. We will resolve this with higher frequency business audience monitoring in 2023/24.</td></tr>
<tr><td rowspan="3">Government’s low-emissions policies are bold and credible</td><td rowspan="3">New Zealand progresses towards meeting its 2030 carbon targets</td><td>Decrease from previous year</td><td>58,582 ktCO₂e</td><td>55,465 ktCO₂e</td><td>55,746 ktCO₂e ↗</td><td>Not achieved</td></tr>
<tr><td colspan="5">Energy-related emissions dipped in 2020, in part due to the impact of COVID-19 lockdowns (reflected in the 2021/22 result where 2020 data was the latest available). The slight increase from 2021/22 to 2022/23 is likely due to a lower impact from COVID-19, however, emissions remain well below the baseline.</td></tr>
<tr><td colspan="5">Notes to the measure:
• New Zealand’s 2030 target is as follows: New Zealand’s net emissions will be 50 per cent below 2005 gross emissions for the period 01 January 2021 to 31 December 2030. This target is New Zealand’s first Nationally Determined Contribution (NDC) under the Paris Agreement. This requires a net annual emissions decrease towards 41,333 ktCO2e.
• Emissions data is sourced from the Ministry for the Environment’s Greenhouse Gas Inventory – the official annual report of all anthropogenic emissions and removals of greenhouse gases (GHGs) in New Zealand. We have extracted 2021 emissions data from the times series emissions data by category (the latest data available in the inventory).
• There is a level of inherent uncertainty in reporting greenhouse gas emissions. The scientific knowledge and methodologies to determine emissions factors and the processes to calculate or estimate quantities of GHG sources are still evolving, as are GHG reporting and assurance standards. The full disclosure on the New Zealand Greenhouse emissions, including inventory uncertainties, methodologies and assumptions used in the calculation, are included in the latest inventory report: New Zealand’s Greenhouse Gas Inventory 1990–2021 (Ministry for the Environment). Emissions estimates across the entire time series are, at certain points in time, recalculated due to improvements introduced to the inventory.</td></tr>
</table>

Note in July 2023, we ran our business monitoring surveys again to assess the impact of our Business Campaign that went live 1 May 2023. The results of this monitor showed an increase back above the target percentage for all key business measures, which puts us in a better position heading into 2023/24.

How much our activities cost

The cost of our activities under the 'Engage Hearts and Minds' strategic focus area in 2022/23 is outlined in the table below, including a comparison to the budget from the start of the year and the cost last year.

	Budget 2022/23 $000	Actual 2022/23 $000	Actual 2021/22 $000
Operating revenue			
Energy Efficiency and Conservation			
Crown funding	3,529	2,968	5,290
	3,529	2,968	5,290
Other revenue	-	212	-
Total operating revenue	**3,529**	**3,180**	**5,290**
Operating Expenses			
Other operating expenses	3,529	2,677	5,287
Total operating expenses	**3,529**	**2,677**	**5,287**
Surplus/deficit	-	503	3

Appendix 1 - Disclosure of judgments regarding changes to annual performance measures

In selecting performance measures for our key activities in 2022/23, we considered the required characteristics of relevance, faithful representation, understandability, timeliness, comparability, and verifiability. We also considered the pervasive constraints of materiality, cost-benefit, and the balance between qualitative characteristics.

Following a review our performance measures against the required characteristics and constraints, we made several changes for 2022/23 to improve their appropriateness and meaningfulness. We determined that a number of measures lacked relevance or understandability, and these were removed. The new and changed measures were then introduced to address this. Further detail is outlined in the tables below.

Efficient and low-emissions business

Type of significant change	Measure for 2021/22	Measure for 2022/23	Rationale for change
Removed measure	**SPE and Estimates measure:** Percentage of the emissions Reductions delivered through the Government Investment in Decarbonising Industry (GIDI) Fund and Direct Engagement business programmes are at an abatement cost to EECA below the market price of carbon **Target:** 90%	**SPE and Estimates measure:** N/A **Target:** N/A	This measure was replaced with more relevant measures below that better reflect the GIDI Fund's performance (including the funding boost it received in Budget 2022 to expand the number and types of projects supported)
New measure	**Estimates measure:** N/A **Target:** N/A	**Estimates measure:** The expanded GIDI Fund is established following a design process **Target:** Achieved	Establishing the expanded GIDI Fund is a significant area of activity for the relevant appropriation.
New measure	**SPE measure:** N/A **Target:** N/A	**SPE measure:** GIDI funding committed to projects **Target:** $100 million	Commitment of funding is an important aspect of the GIDI Fund's performance.
New measure	**SPE measure:** N/A **Target:** N/A	**SPE measure:** Amount of emissions reductions that will be delivered in 2023/24 from GIDI funding committed during the financial year **Target:** 175,000 tonnes	Committing to future emissions reductions is an important aspect of the GIDI Fund's performance.

Type of significant change	Measure for 2021/22	Measure for 2022/23	Rationale for change
New measure	**SPE measure:** N/A **Target:** N/A	**SPE measure:** Emissions reductions delivered by completed GIDI projects **Target:** 110,000 tonnes	The delivery of emissions reductions is an important aspect of the GIDI Fund's performance.
New measure	**Estimates measure:** N/A **Target:** N/A	**Estimates measure:** Estimated annual emissions reductions delivered by completed GIDI projects **Target:** 100,000 tonnes	Delivering emissions reductions through the GIDI Fund is a significant area of activity for the relevant appropriation.
Removed measure	**SPE measure:** Energy-related emissions are saved annually through EECA business co-investments **Target:** 115,000 tonnes	**SPE measure:** N/A **Target:** N/A	The majority of the emissions savings in the business space going forward will relate to the GIDI Fund, which is already captured in the measures above.
Removed measure	**SPE measure:** Number of businesses complete an Energy Transition Accelerator (ETA) **SPE measure:** 20 businesses	**SPE measure:** N/A **SPE measure:** N/A	The standard ETA programme was no longer a significant area of activity for 2022/23, as the regional ETA programme below has been established.
New measure	**SPE measure:** N/A **Target:** N/A	**SPE measure:** Number of Regional Energy Transition Accelerator (RETA) roadmaps completed **Target:** 6 roadmaps	The RETA programme was a new and significant area of activity for 2022/23.
Removed measure	**SPE measure:** Number of decarbonisation partnerships developed with priority sector organisations **Target:** 3 partnerships	**SPE measure:** N/A **Target:** N/A	The development of sector partnerships was no longer a significant area of activity for 2022/23, as our focus shifted to the production of sector resources (see measure below).
Changed criteria	**SPE measure:** Number of priority sectors for which a decarbonisation roadmap is completed **Target:** 2 sectors	**SPE measure:** Number of priority sectors for which a targeted resource is released **Target:** 5 sectors	Performance in this area is better reflected by the resources and tools we provide to businesses (which are informed by the roadmaps).

Type of significant change	Measure for 2021/22	Measure for 2022/23	Rationale for change
Changed criteria	**SPE measure:** Number of projects co-funded that demonstrate new technologies in priority sectors **Target:** 8 projects	**SPE measure:** Number of technology demonstration projects co-funded that increase energy efficiency and/or emissions reductions (and number of highly replicable technologies demonstrated) **Target:** 12 projects and 3 highly replicable technologies	Performance in this area is better reflected with the inclusion of information on the replicability of technologies.
New measure	**Estimates measure:** N/A **Target:** N/A	**Estimates measure:** Percentage of business co-funding committed to projects that increase business energy efficiency and the use of renewable energy, and reduce emissions **Target:** 90%	Co-funding business projects is a significant area of activity for the relevant appropriation.

Efficient and low-emissions transport

Type of significant change	Measure for 2021/22	Measure for 2022/23	Rationale for change
Changed criteria	**SPE measure:** Amount of Low Emission Transport Fund (LETF) funding committed to projects **Target:** $10 million	**SPE measure:** Percentage of the LETF co-funding budget (net) committed to projects **Target:** 95%	This measure was updated to a percentage to allow for easier interpretation of performance for the reader.
Removed measure	**SPE measure:** Number of LETF rounds completed **Target:** 2 rounds	**SPE measure:** N/A **Target:** N/A	This measure was removed as it was not a relevant measure of the LETF's performance.
Changed criteria	**SPE measure:** Percentage of transport co-funding committed to scalable low-emissions technologies and fuels **Target:** 30%	**SPE measure:** Percentage of the LETF co-funding budget (net) committed to public charging infrastructure projects **Target:** 40%	The criteria for this measure was narrowed to public charging infrastructure – a strategic funding focus for 2022/23.

Type of significant change	Measure for 2021/22	Measure for 2022/23	Rationale for change
Removed measure	**SPE measure:** A national public charging infrastructure plan is completed **Target:** Achieved	**SPE measure:** N/A **Target:** N/A	This measure was completed in 2021/22 and replaced by a more relevant measure below.
New measure	**Estimates measure:** N/A **Target:** N/A	**Estimates measure:** Number of public journey charger clusters (identified by the charging roadmap) co-funded **Target:** 1 cluster	This measure was introduced to reflect the move into the implementation phase of charging roadmap.
Removed measure	**SPE measure:** Number of large energy users who incorporate transport-related emissions into their Energy Transition Accelerator (ETA) **Target:** 3 large energy users	**SPE measure:** N/A **Target:** N/A	ETA was not a significant area of activity in 2022/23.

Energy efficient homes

Type of significant change	Measure for 2021/22	Measure for 2022/23	Rationale for change
Changed criteria	**SPE measure:** Number of Publicly Available Specifications (PAS) developed **Target:** 2 PAS	**SPE measure:** Number of new or revised Publicly Available Specifications (PAS) published **Target:** 2 PAS	The criteria for this measure was broadened to include revised PAS (which can be a significant amount of work) and specify the publishing requirement.

Government leadership

Type of significant change	Measure for 2021/22	Measure for 2022/23	Rationale for change
Removed measure	**SPE measure:** Number of State sector organisations that complete an Energy Transition Accelerator (ETA) **Target:** 13 organisations	**SPE measure:** N/A **Target:** N/A	ETA was not a significant area of activity in 2022/23.
Removed measure	**SPE measure:** Number of State sector organisations that complete a fleet optimisation plan **Target:** 10 organisations	**SPE measure:** N/A **Target:** N/A	Fleet optimisation was not a significant area of activity in 2022/23.
New measure	**SPE measure:** N/A **Target:** N/A	**SPE measure:** Number of market communications delivered that integrate insights from completed EECA-supported low-emissions projects **Target:** 6 communications	The Minister's Letter of Expectations for 2022/23 highlighted the expectation for EECA to "leverage [our] key role to share market intelligence, insights and expertise within and outside government". This measure was established to provide information on our performance in this area.

Engage hearts and minds

Type of significant change	Measure for 2021/22	Measure for 2022/23	Rationale for change
Changed criteria	**SPE measure:** Percentage of individuals that understand transport is the biggest contributor to New Zealand's energy-related emissions **Target:** 32%	**SPE measure:** Percentage of individuals that understand that the use of petrol and diesel-powered vehicles is one of the biggest contributors to New Zealand's energy-related emissions **Target:** 42%	Previously this measure averaged two percentages: the percentage of responses that included 'reducing our flights' as one of the best things you can do for climate change, and the percentage of responses that included 'reducing our use of petrol and diesel powered vehicles' as one of the best things you can do for climate change. The scope of the question was refined to only count responses that include petrol and diesel vehicles as this is where EECA has relevant work programmes (none of our work programmes touch on or attempt to reduce flying). The target was revised accordingly.
Removed measure	**SPE measure:** Percentage of individuals say they are likely to consider a low-emissions vehicle as their next car purchase **Target:** 46%	**SPE measure:** N/A **Target:** N/A	This measure no longer reflected the focus and effort of EECA's behaviour change campaigns.

Appendix 2 - Budget significant initiatives

The table below shows the location of performance information for significant initiatives funded in the last three budgets.

Budget significant initiative	Description	Budget year funded	Location of performance information
Funding further decarbonisation of process heat and implementation of supporting policies	Funding to expand the Government Investment in Industry (GIDI) Fund (from 2022/23)	Budget 2022	Pages 34-36
Extending the Warmer Kiwi Homes programme	Funding to extend the Warmer Kiwi Homes programme (for 2023/24)	Budget 2022	N/A – funding does not apply in 2022/23
Decarbonising Freight Transport - Resourcing and Seed Funding	Funding to support freight decarbonisation under the Low Emission Transport Fund (from 2023/24)	Budget 2022	N/A – funding does not apply in 2022/23
Extending the Warmer Kiwi Homes Programme	Funding to extend the Warmer Kiwi Homes programme (for 2021/22 and 2022/23)	Budget 2021	Pages 49-50
Scaling up EECA's Energy and Decarbonisation support for Business	Funding to increase EECA's direct business engagement funding (from 2021/22)	Budget 2021	Pages 37-39
Expanding the Scope and Size of Funding for Low Emission Transport Technologies and Fuels	Funding to expand the Low Emission Transport Fund (from 2021/22)	Budget 2021	Pages 43-44
Implementing the Carbon Neutral Government Programme	Funding to support the implementation of the Carbon Neutral Government Programme (CNGP) (from 2021/22)	Budget 2021	Page 55
Support For Decarbonisation in the State Sector Through Funding Assistance to Deliver Low Emissions Energy Investment	Funding to support the delivery of the State Sector Decarbonisation Fund (SSDF) (from 2021/22)	Budget 2020	Page 55
Expanding the Warmer Kiwi Homes Programme to Support Low-Income Households	Funding to extend the Warmer Kiwi Homes programme (for 2020/21 and 2021/22)	Budget 2020	N/A – funding does not apply in 2022/23

Appendix 3 - Appropriation funding

The table below shows the Crown funding made available by the Crown through the Estimates and Supplementary Estimates compared with that recognised by the Energy and Efficiency Conservation Authority in the year for each of our appropriations.

	Estimates $000	Supplementary Estimates $000	Actual $000	Difference vs Supplementary Estimates $000
Energy Efficiency and Conservation (Annual appropriation)				
Energy Efficiency and Conservation	50,134	51,089	49,558	1,531
Electricity levy funding	5,300	5,300	5,300	-
Gas levy funding	1,500	1,500	1,500	-
Petroleum levy funding	10,500	10,500	10,500	-
Total appropriation	**67,434**	**68,389**	**66,858**	**1,531**
Implementation of Warm Dry Homes 2018-2023 (Multi- year appropriation)				
Crown Revenue - earlier years	14,473	14,473	14,473	-
Crown Revenue - year ended 30 June 2023	5,070	2,536	2,536	-
Remaining appropriation	-	-	-	-
Total appropriation	**19,543**	**17,009**	**17,009**	-
Implementation of the Grant Scheme for Warm, Dry Homes 2022-2027 (Multi- year appropriation)				
Crown Revenue - earlier years	-	-	-	-
Crown Revenue - year ended 30 June 2023	-	2,385	2,385	-
Remaining appropriation	5,118	5,118	5,118	-
Total appropriation	**5,118**	**7,503**	**7,503**	-
Grant Scheme for Warm Dry Homes 2018-2022 (Multi- year appropriation)				
Crown Revenue - earlier years	238,385	224,710	224,710	-
Crown Revenue - year ended 30 June 2023	67,360	33,680	33,680	-
Remaining appropriation	-	-	-	-
Total appropriation	**305,745**	**258,390**	**258,390**	-

	Estimates $000	Supplementary Estimates $000	Actual $000	Difference vs Supplementary Estimates $000
Grant Scheme for Warm Dry Homes 2022-2027 (Multi- year appropriation)				
Crown Revenue - earlier years	-	-	-	-
Crown Revenue - year ended 30 June 2023	-	47,355	30,709	16,646
Remaining appropriation	68,000	68,000	84,646	(16,646)
Total appropriation	68,000	115,355	115,355	0
Accelerating Energy Efficiency and Fuel Switching in Industry 2021-2025 (Multi- year appropriation)				
Crown Revenue - earlier years	34,200	10,885	10,885	-
Crown Revenue - year ended 30 June 2023	53,550	58,115	22,634	35,481
Remaining appropriation	6,250	-	35,481	(35,481)
Total appropriation	94,000	69,000	69,000	-
Accelerating Energy Efficiency and Fuel Switching in Industry 2022-2027 (Multi- year appropriation)				
Crown Revenue - earlier years	-	-	-	-
Crown Revenue - year ended 30 June 2023	61,684	80,434	2,045	78,389
Remaining appropriation	746,742	752,992	831,381	(78,389)
Total appropriation	808,426	833,426	833,426	-
Investment in Infrastructure Projects (Multi category appropriation) - Grants Scheme				
Crown Revenue - year ended 30 June 2023	7,600	27,066	1,710	25,356
Total appropriation	7,600	27,066	1,710	25,356
Investment in Infrastructure Projects (Multi category appropriation) - Operational support of Infrastructure Investments				
Crown Revenue - year ended 30 June 2023	12,519	-	-	-
Total appropriation	12,519	-	-	-
Energy and Resources: Crown Energy Efficiency (Capital Appropriation)				
Crown Revenue - year ended 30 June 2023	2,000	3,500	3,334	166

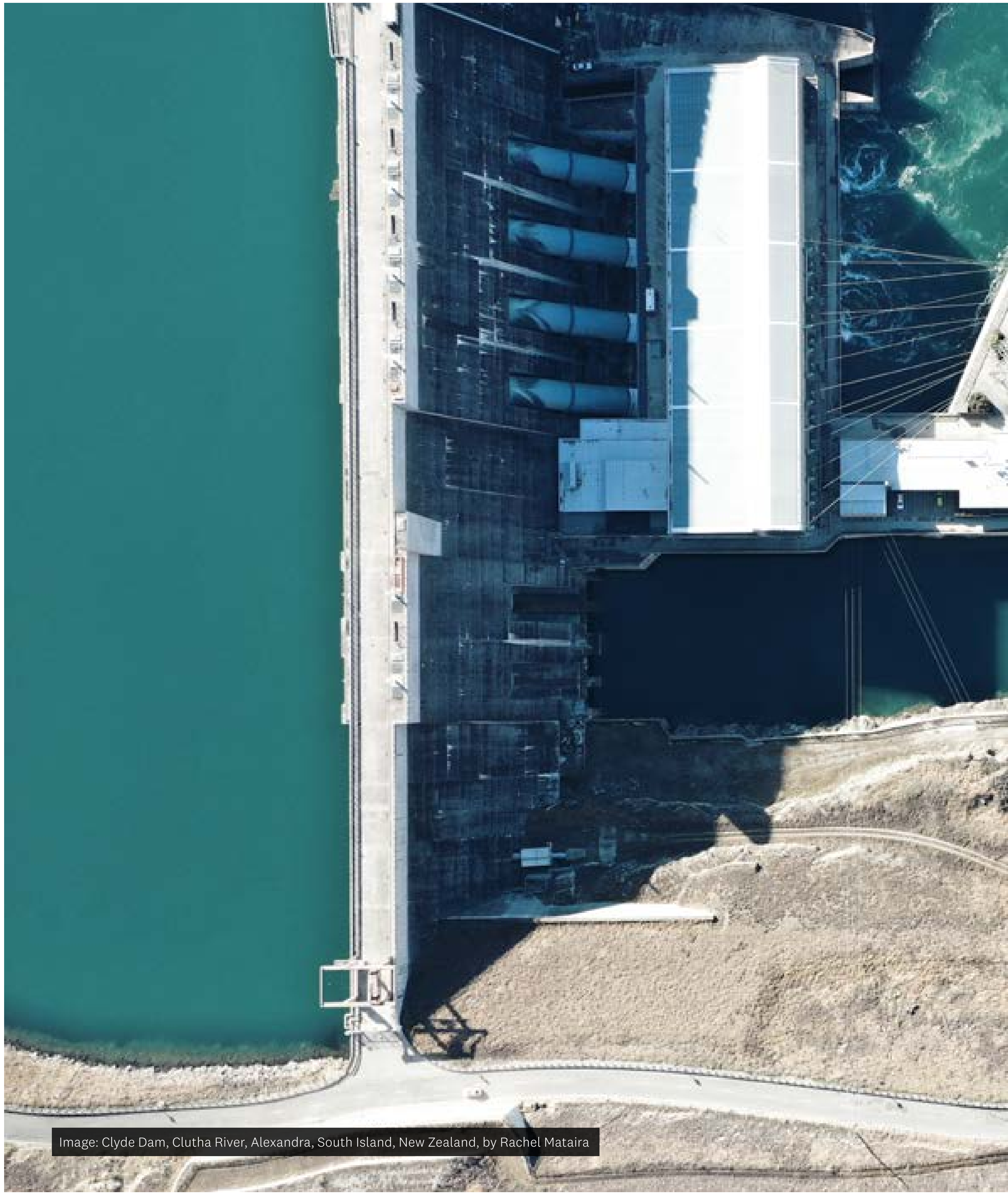
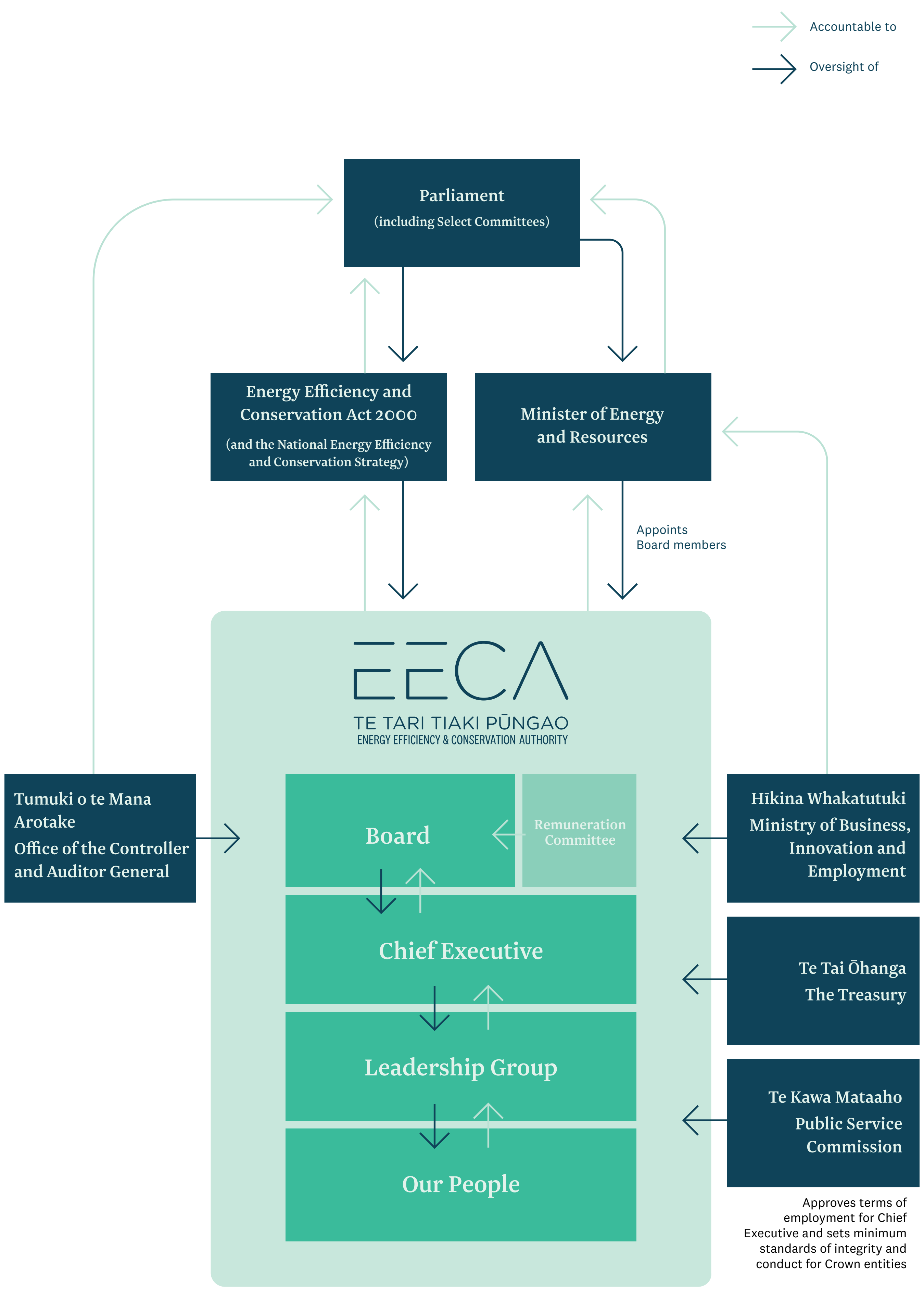


Image: Clyde Dam, Clutha River, Alexandra, South Island, New Zealand, by Rachel Mataira

Governance

We are committed to good governance and continue to seek best practice as guardians of the long-term sustainability of Te Tari Tiaki Pūngao Energy Efficiency and Conservation Authority.

Image: Wairakei Geothermal, Taupō, North Island, New Zealand, by Rachel Mataira



Our governance framework

EECA is governed by a Board of up to eight non-executive members, each appointed by the Minister of Energy and Resources (Minister) for up to three years. The Minister has the power to reappoint a Board member or shorten a Board member's term. Our statutory governance framework arrangements are illustrated in the diagram on the previous page.

The Board has the authority to exercise EECA's statutory powers and perform its functions and may only act for the purpose of performing EECA's statutory functions.

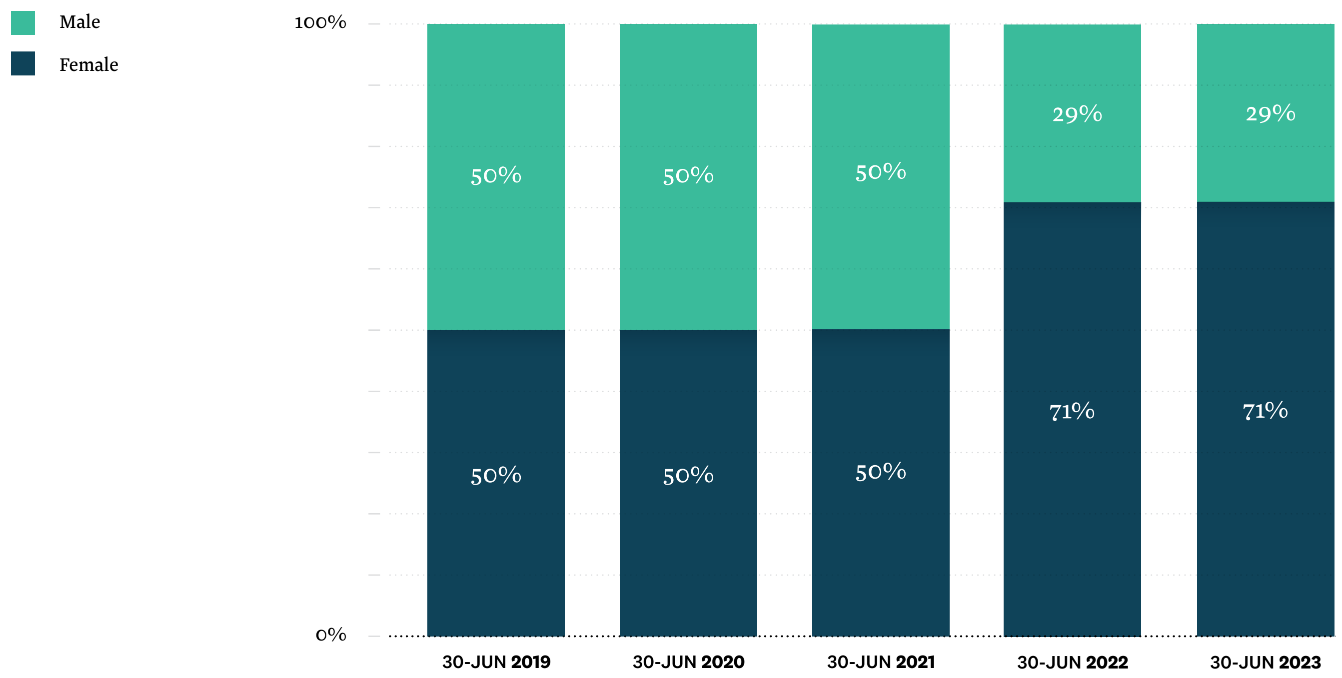
Board members are accountable to the Minister for the performance of their duties. The Board's governance role is largely determined by the provisions of the following legislation:

» Crown Entities Act 2004
» Energy Efficiency and Conservation Act 2000
» Public Service Act 2020
» Public Finance Act 1989
» Health and Safety at Work Act 2015
» Climate Change Response (Zero Carbon) Amendment Act 2019.

Good governance through board diversity

Boards should be distinguished by diversity of thought and capability. Strong, diverse, and balanced governance brings breadth of perspective and better decision-making and creates stronger resilience and higher performing organisations.

We've exceeded or met the Government's target of 50% female representation on state sector boards[16] for the last five years. The following graph shows our Board's gender diversity is 71% female and 29% male as at 30 June 2023, which is 21 percentage points above the female target.



[16] www.beehive.govt.nz/release/government-achieves-50-percent-women-state-boards (last accessed 20 July 2023).

Board and sub-committee attendance and fees

Board members are remunerated under the Cabinet Fees Framework[17] at a rate approved by the Minister.

The following table shows the attendance of Board members at scheduled Board and Committee meetings during 2022/23 and their remuneration.

Board members	EECA Board meeting attendance[18]	Remuneration Committee[19] attendance	2022/23 remuneration
Elena Trout (Board Chair)	10/11	3/3	$33,000
Catherine Taylor (Deputy Chair)	11/11	3/3	$20,000
Albert Brantley	9/11	3/3	$17,000
Loretta Lovell	7/11	N/A	$17,000
Karen Sherry	10/11	N/A	$17,000
Norman Smith	9/11	N/A	$17,000
Dr Linda Wright	11/11	N/A	$17,000

Disclosures of interest

The Board's policy and practice for managing conflicts of interest are covered by our Board Governance Manual. This manual is based on good practice guidelines, aligned with relevant legislation from the Crown Entities Act 2004. Relevant sections of this act include:

- Section 63, which requires Board members who have interests in matters relating to the entity to disclose details of the interests as soon as practicable after becoming aware of them. The Board has a conflict-of-interest process under which Board members disclose their interests at least monthly.
- Section 66, which states a member who is interested in a matter relating to the entity is prohibited from acting with the Board on the matter. Nor can the member form part of a Board or committee quorum for any discussion or decision in relation to the matter.
- Section 68, which provides a process under which the Board Chair (or Deputy Chair or the Minister in certain circumstances) may, by prior written notice to the Board, permit a Board member to act on a matter in respect of which the member would otherwise be prohibited by Section 66. No such permissions were given during the 12 months ending 30 June 2023.

[17] Cabinet Fees Framework, Circular CO (19) 1, effective from 1 July 2019.

[18] Board member availability and meeting attendance can be impacted by sickness and scheduling.

[19] Attendance at committee meetings is recorded for committee members only. If a Board member is not a member of a committee but attended a meeting as an observer, their attendance has not been noted here.

Monitoring performance

Each year, the Board critically evaluates its collective performance, processes, and procedures. The performance of individual Board members is also reviewed and evaluated annually by the Board Chair.

Continuing education

EECA provides ongoing support for continuous professional learning and development to all Board members. EECA also expects that Board members will take responsibility for continuously improving their professional knowledge and skills, utilising and supplementing this support where required.

Whole-of-government directions

On 22 April 2014, the Minister of State Services and the Minister of Finance issued directions to apply whole-of-government approaches to information and communications technology (ICT), property and procurement. A further direction was issued in 2016 for the New Zealand Business Number.

Whole-of-government area	ICT	Property	Procurement	New Zealand Business Number	New Zealand Business Number
Date applies from	19 June 2014	1 July 2014	1 February 2015	1 January 2018	27 March 2022

Parliamentary questions

Between 1 July 2022 and 30 June 2023, EECA answered 300 Written Parliamentary Questions and 5 Oral Parliamentary Questions.

Official Information Act requests

Between 1 July 2022 and 30 June 2023, EECA completed 60 Official Information Act requests:

Year ended	Total requests completed	Requests completed within legislated timeframe	Requests not completed within legislated timeframe
30 June 2023	60	59	1
30 June 2022	30	26	4
30 June 2021	23	23	0
30 June 2020	9	9	0
30 June 2019	17	17	0

We aim to meet all requests as soon as reasonably practical, and within legislated deadlines. This will continue to be a focus in 2023/24.

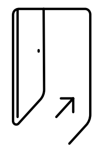
Our people

We want EECA to be a place where people are treated fairly and with respect, where they feel their uniqueness and contributions are valued and heard, and where they feel that they belong. Working to embed a diverse and inclusive culture at EECA is an organisational priority and is included in our strategy and our behaviours.

Our behaviours

We place a very high value on a strong, behaviours-based culture to guide the way we operate and work together, and the decisions we make. Our four key behaviours help us build a highly engaged, committed workforce to mobilise New Zealanders to be world leaders in clean and clever energy use.

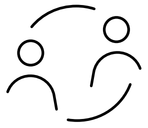
1



Open to the new

Changing New Zealand needs openness and understanding. To succeed, we welcome fresh thinking from others and create an environment where new perspectives are cherished.

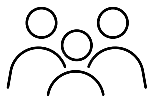
2



Stand in others' shoes

To mobilise New Zealanders, we need to understand people. That means parking our pre-conceptions and getting to know them before we act.

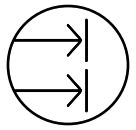
3



Believe in "we" not "me"

Tackling climate change will take collaboration. We need to work together, in a positive and proactive way to make the good stuff happen.

4



Deliver the goods

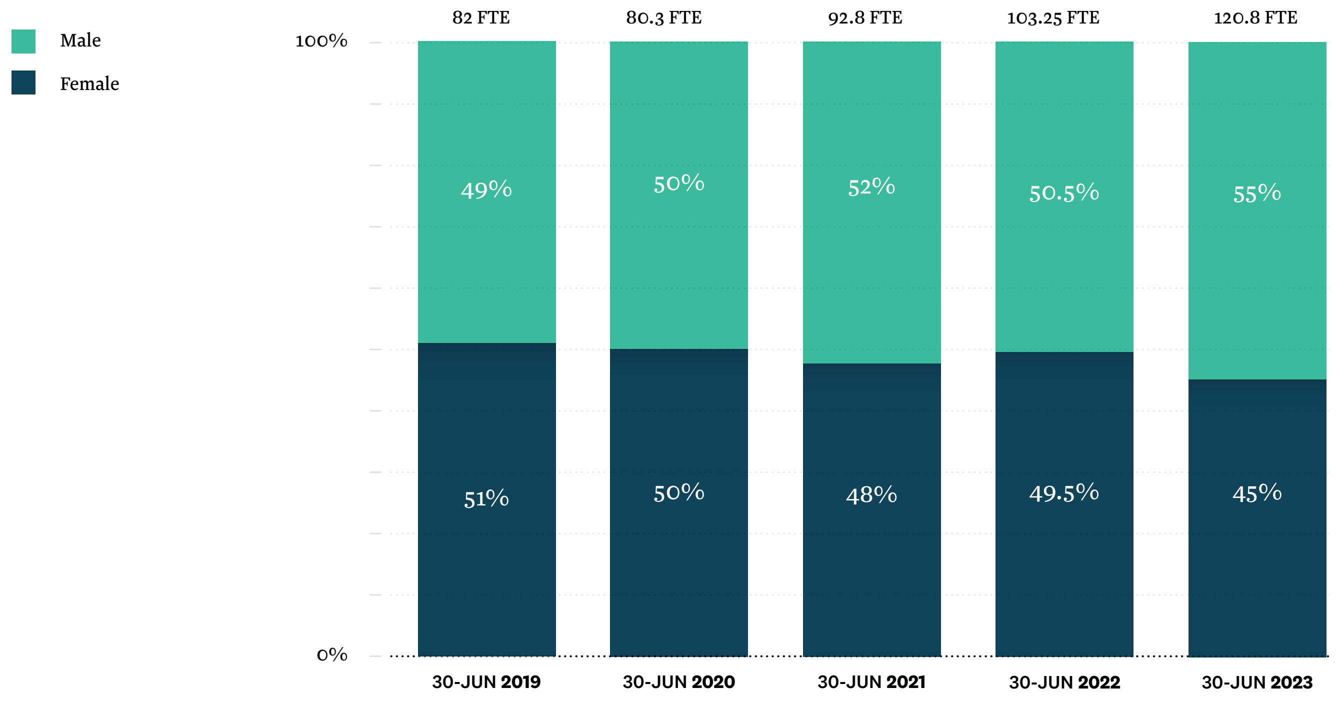
To be world leaders in clean and clever energy use, we need every individual at EECA to own their part of the challenge.

Diversity and inclusion

We seek to be an organisation reflective of the diversity of New Zealand with an inclusive culture that is comfortable for all people to work in. We want our success to be built upon the diverse knowledge, perspectives, and backgrounds of our people.

As at 30 June 2023, we had a workforce of 120.8 full-time equivalent (FTE) employees. This is a net increase of 17% from 30 June 2022 (103.25 FTE).

The following graph shows our workforce gender proportions[20] are 45% female and 55% male, which has fluctuated slightly over the past five years. Our female representation is lower than the overall New Zealand workforce (50.7% female)[21] and lower than the overall population (50.3% female).[22]



Our gender proportions at leadership level (Tiers 1-3) are also 45% female and 55% male. Our female representation in leadership is lower than that of the wider public sector (55.8% of Tiers 1-3 leaders identifying as female)[23].

The following table shows our workforce ethnicity based on self-reporting. Our people can choose to self-identify with more than one ethnic group, so the percentages shown are not representative of our FTE numbers.

Self-reported ethnicity	2019	2020	2021	2022	2023
Māori	7%	4%	6%	8%	4%
New Zealander of European descent	68%	67%	63%	64%	66%
Pacific peoples	1%	4%	3%	3%	3%
Asian	7%	8%	13%	11%	13%
Other ethnicities	17%	17%	15%	14%	14%

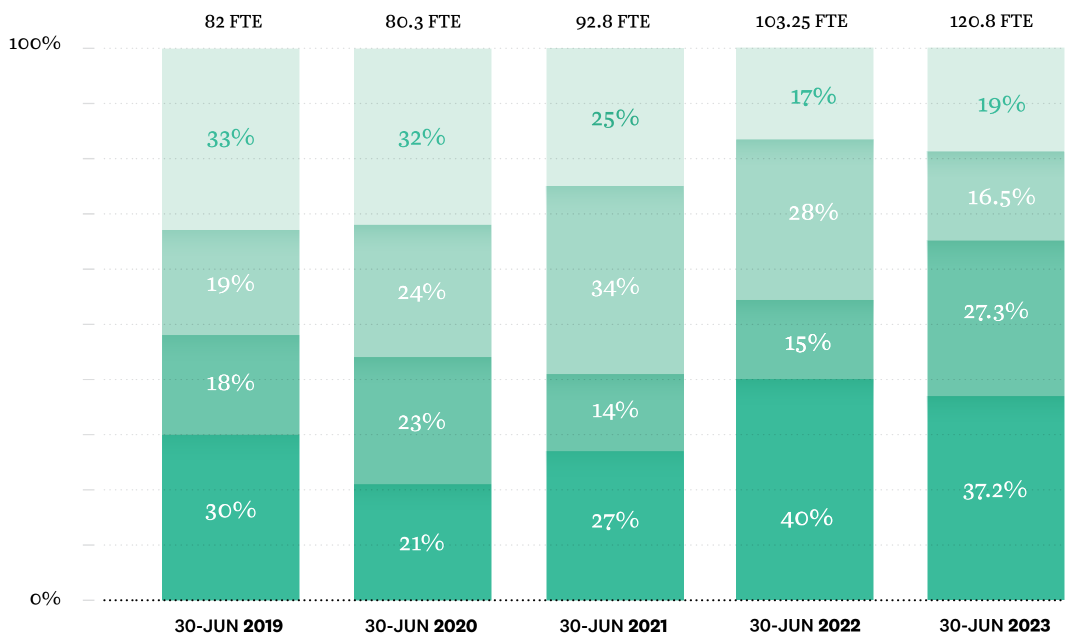
[20] We provide our people with three options to choose to report their gender: male, female and gender diverse. None of our people formally chose the gender diverse option when updating their personal information within our human resources system.

[21] Public Service Commission; www.publicservice.govt.nz/our-work/workforce-data/diversity-and-inclusion/gender-representation-in-the-public-service (last accessed 10 August 2023).

[22] Statistics New Zealand; www.stats.govt.nz/topics/population-estimates-and-projections (10 August 2023).

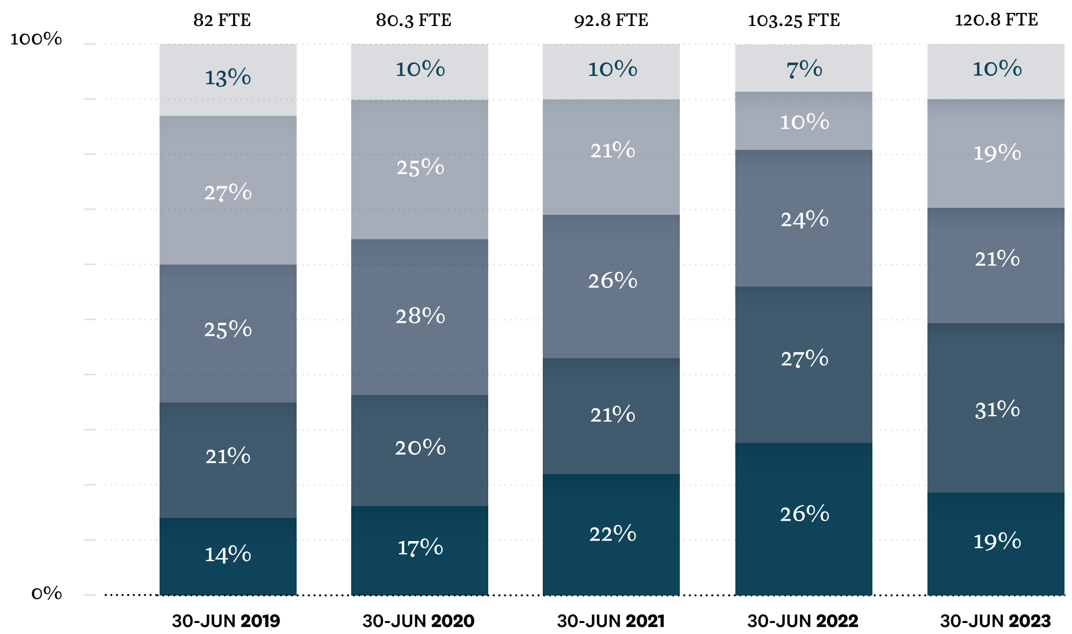
[23] Public Service Commission; https://www.publicservice.govt.nz/research-and-data/workforce-data-senior-leaders/senior-leader-composition/ (last accessed 17 August 2023).

The following graph shows our workforce length of service as at 30 June 2023 and the trend over the last five years.



Less than 1 year
1-2 years
2-5 years
5+ years

The following graph shows our workforce age profile as at 30 June 2023 and the trend over the last five years.



Under 30
30-39 years
40-49 years
50-59 years
60 and over

The following tiles show a snapshot of our key workplace indicators as at 30 June 2023:

4 days
Our average sick leave per person

3 years
Our average length of service

27.5 percent
Our average staff turnover

The high turnover rate was likely impacted by labour market conditions and skill shortages, with high competition for skilled staff, along with significant churn in the Public Sector. Additionally, with international borders reopening post-Covid, a number of employees (almost 19% of exiting staff) have departed to travel and work overseas.

Papa Pounamu

Papa Pounamu was established in 2017 to bring together diversity and inclusion practices across the Public Service and support organisations to meet their diversity and inclusion obligations and goals. Papa Pounamu is committed to achieving better outcomes for all diversity groups, and our activities under the five dimensions of this framework are outlined in the following table.

Papa Pounamu diversity and inclusion dimensions	What we delivered this year
Cultural competence	» An organisation wide programme was launched to upskill staff on Te Ao Māori » Te Reo language classes have been provided to staff, as well as company-wide Te Tiriti o Waitangi sessions » Our People and Capability Plan includes a Te Tiriti and Te Ao Māori pillar including development initiatives
Addressing bias	» Recruitment practices have been improved through better targeting of recruitment channels, necessary skills for roles, and ensuring gender balance on interview panels » Exit interviews include diversity, equity, and inclusion questions
Inclusive leadership	» A leadership development programme was undertaken for the wider leadership group » Monthly wider leadership group meetings were held to enhance leadership across the organisation
Building relationships	» Cross-EECA virtual and project groups were commonly adopted, which included managers and staff at all levels » There was a continued focus on our EECA behaviours
Employee-led networks	» The Staff Reference Group met regularly with the Chief Executive » The Kakariki (Sustainability) Group was active in advocating cross-EECA initiatives » The Health and Safety Committee met quarterly with the Chief Executive » The Social Club led several activities that contributed to EECA's staff community » The Te Ao Māori Group welcomed new members and established regular meetings

Kia Toipoto Pay Gap Reporting

The gender pay gap is a high-level indicator of the difference between the earnings of females and males. It compares the median hourly earnings in full-time and part-time work. Based on the median pay from EECA's entire workforce, our overall gender pay gap was 7.6% as at 30 June 2023 (calculated using the Statistics New Zealand methodology). This is a 0.9% decrease from 8.5% in 2022 and continues to reflect the fact that there is a greater number of females in lower pay grade roles and a higher number of males in higher pay grade roles.

The following table shows each pay grade, comparing female and male salaries in more detail.

Pay grade	2022 gender gap	Gender pay gap in favour of[24]
12	7%	Male
13	3.3%	Female
14	5.7%	Male
15	1.2%	Female
16	1.3%	Female
17	0.8%	Male
18	3.6%	Female
19	1.8%	Female
20	N/A	Nil population
21	2%	Male
22	N/A	Nil population
23	N/A	Nil population
24	N/A	Nil population
25	N/A	Single population

When our pay gap is analysed at a more detailed level by grade (as above), the gap is minimal or in favour of females where we have the greatest population. We use information such as trends, our workforce profile, payroll data, and recruitment statistics as indicators to track our ongoing progress. Looking at our information, we can see:

» We have a close ratio of women and men in our workforce, with an equal ratio holding third tier leadership roles

» We have a good spread of genders across the majority of our pay bands

» Recruitment statistics show an equal number of women and men being recruited to roles across the organisation

» From a recruitment and remuneration perspective, gender equity is kept top of mind.

[24] We recognise that "by-level" gaps in pay grades can occur for many reasons, including appropriate individual variation in remuneration because of performance, experience, and capability. Many different types of roles included in each pay grade. Furthermore, employment market demand can lead to differences in remuneration. One of our main reward and recognition principles is to provide remuneration increases based upon a person's individual performance. This means that those with higher performance ratings and lower positions in range may receive larger percentage increases to their remuneration.

EECA's workforce size means we do not meet the threshold for producing ethnic pay gap statistics. Because of our small size, changes in our staffing (even if small) can have a significant impact on our pay profile statistics, meaning there is volatility in the figures from month to month.

Being a good employer

Ko te tangata kei te pūtake o ā mātau mahi katoa. People are at the centre of our work.

We value being a good employer. Under our Equal Employment Opportunities practices, all our people are treated on merit.

Our activities under the elements of being a good employer, set out by the Human Rights Commission, are underpinned by our People and Capability Strategy and ensure we have the right capability to deliver on our purpose of mobilising New Zealanders to be world leaders in clean and clever energy use. Our progress is outlined in the following table.

Good employer elements	What we delivered this year
Leadership, accountability, and culture	» EECA's key organisational behaviours are reinforced through our leader-led conversations to support our culture, along with a regular recognition programme to reward demonstration of these behaviours » Our performance development cycle (through Delivery and Development Plans) enables the setting of clear objectives for our people each year, with regular feedback on progress » The Wider Leadership Group and Staff Reference Group contribute to our leadership, accountability, and culture
Recruitment, selection, and induction	» Robust recruitment and selection processes are employed to attract a diverse range of applicants and to ensure consistent decision-making » Effective onboarding takes place through standardised material and 30- and 60-day discussions
Employee development, promotion and exit	» A performance development and remuneration framework is in place, with tools and resources to support our people and their leaders » A range of training initiatives is available to employees » Internal promotion opportunities are offered (when available), with roles and secondment opportunities advertised internally » Reviews of employee turnover trends and reasons for exit are analysed to identify improvement opportunities
Flexibility and work design	» Our working from home policy and flexible work arrangements align to our people's needs and organisational requirements
Remuneration, recognition, and conditions	» We celebrate and reward our staff successes in a variety of ways » Equitable job benchmarking and remuneration practices are standard practice » Gender pay equity is monitored
Harassment and bullying prevention	» The Employee Code of Conduct and relevant policies are available to staff at all times » One of our four key behaviours is Believe in "we" not "me", which sets an expectation of a respectful and collaborative work environment
Safe and healthy environment	» Employee representation and involvement in the Health and Safety committee and related initiatives encourage engagement » Effective management of key health, safety and wellbeing risks occurs through a structured approach to identification, control and monitoring » A comprehensive wellbeing programme tailored to our environment occurs throughout the year, including: » Flu vaccinations » Employee Assistance Programme » Ergonomic workstation assessments and sit/stand desks across all our offices

Our Te Ao Māori journey

We recognise that the Treaty of Waitangi is a founding document of government in New Zealand and established the country as a nation. We aim to support the Crown in its Treaty relationships and deliver our services in ways that enable equitable outcomes for Māori.

Our Te Ao Māori programme

We acknowledge any organisation that aims to support social transition needs to learn about and consider tikanga Māori and mātauranga Māori frameworks and their lessons to make programmes more impactful. As the 'Guardians of the Energy' we know have a responsibility to ensure Māori interests and rights are considered when designing and implementing our programmes.

In recognition of our commitment to Te Tiriti o Waitangi, we launched a Te Ao Māori programme in September 2021: an organisation change programme placing a renewed focus on improving our Te Ao Māori capability. This is a long-term commitment to ensure we continue building capability as the organisation grows and to help us work towards a long-term Māori engagement strategy.

Our progress

- **We embarked on our learning and development programme to grow** EECA staff awareness and understanding of Te Ao Māori, focussing on topics of significance for EECA such as the Māori economy, sustainability and climate change through a Te Ao Māori lens, and Māori procurement
- **We added information about the Te Ao Māori programme into induction documents,** to highlight its importance to new staff and let them know how to get involved
- **We introduced information on Te Tiriti o Waitangi into our induction sessions** for new staff, so they understand their role and responsibilities as part of a Government agency
- **We held a workshop with our trusted advisor** to set an engagement strategy and agree two priority areas for direct engagement with Māori across our programmes
- **We explored options for improvement to our procurement processes** that would more purposefully support include Māori
- **We created an internal Te Ao Māori intranet page** to keep staff up to date with upcoming events and provide a hub for educational resources and learning
- **We had monthly meetings with our trusted advisor** to provide guidance to our leadership team throughout this journey.

Next steps

- We will continue with our learning and development programme for staff
- We will develop a Tikanga Toolkit to increase staff knowledge and capability
- We will actively look for opportunities to implement Te Reo, Tikanga Māori and Mātauranga Māori in our communications and ways of working
- We will undertake direct engagement with Māori in our agreed two priority areas, aiming for a co-designed partnership that increases the reach of our programmes and uplifts outcomes for Māori
- We will continue to improve outcomes for Māori through our procurement, recruitment and induction processes
- We will analyse policy frameworks to better consider Māori in our policy processes.

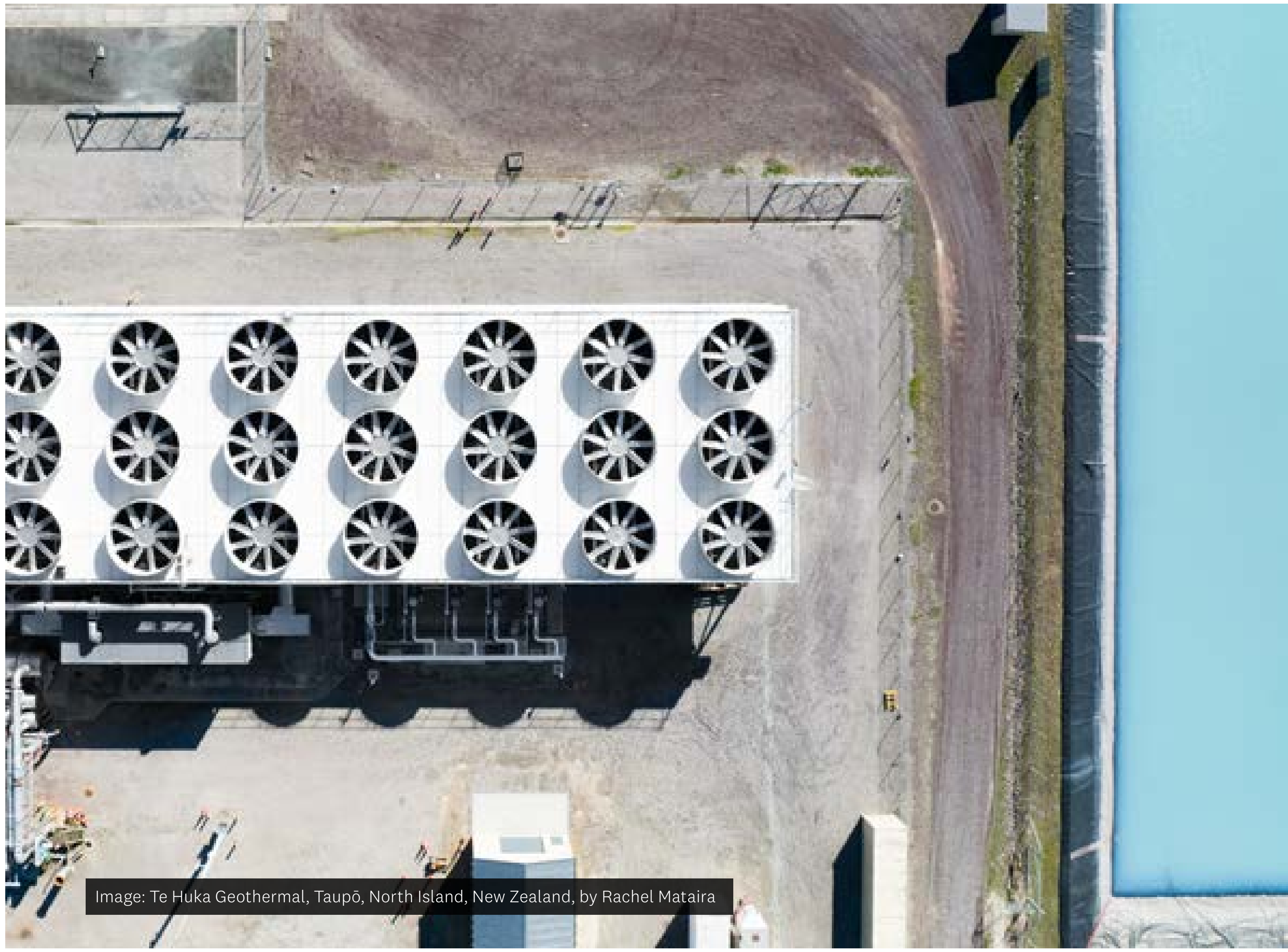


Image: Te Huka Geothermal, Taupō, North Island, New Zealand, by Rachel Mataira

Our carbon footprint

EECA must walk the talk on what we stand for. Although our organisation's carbon footprint is relatively small, we know every little bit counts and we are intent on reducing it.

TOITŪ NET CARBON ZERO ISO 14064-1 ORGANISATION

As a signatory of the Climate Leaders Coalition, we are committed to setting a public emissions reduction target, measuring and publicly reporting on our emissions, and working with our suppliers to reduce their emissions. We are in our sixteenth year of measuring and reporting our carbon emissions.

EECA is proudly a Toitū carbonreduce organisation, which means we are measuring, managing, and reducing our emissions according to ISO 14064-1:2018 and Toitū requirements. Toitū carbonreduce certification is accredited by the Joint Accreditation System of Australia and New Zealand (JAS ANZ) and under ISO 14065. A copy of our Toitū carbonreduce certification disclosure can be viewed on the Toitū website.

Our total annual emissions and sources

EECA operates from three offices located in Auckland, Wellington, and Christchurch. We also engage with energy users across the country to encourage energy efficiency, energy conservation, and the use of renewable energy. As such, our largest sources of emissions are related to travel and office electricity.

In 2022/23, we emitted a total of 188.46 tonnes of CO_2e across all emissions sources. This is a 109% increase from last year (90.35 tCO_2e) and a 23% reduction from our base year (244.92 tCO_2e).

Note in August 2022, the Ministry for the Environment revised its calculation methodology for electricity emissions factors (including purchased electricity and transmission and distribution losses), which altered its electricity emissions factors (including for previous years). In line with best practice, EECA has updated our historic results to reflect this change. Therefore, numbers reported throughout this section may vary slightly from what has been reported in previous years.

Table 1: Gross emissions profile by scope

			tCO_2e		
Category		Scope	Base year (2018/19)	Last year (2021/22)	This year (2022/23)
1	Direct emissions	Scope 1	4.85	1.67	0.00
2	Indirect emissions from imported energy	Scope 2	12.77	18.48	9.70
3	Indirect emissions from transportation	Scope 3	226.44	67.37	166.31
4	Indirect emissions from products used by organisation	Scope 3	0.86	2.83	12.46
5	Indirect emissions associated with the use of products from the organisation	Scope 3	0.00	0.00	0.00
6	Indirect emissions from other sources	Scope 3	0.00	0.00	0.00
Total			**244.92**	**90.35**	**188.46**

The increase in emissions in 2022/23 was influenced largely by an increase in significant programmes and FTEs during the year (resulting in more travel and the creation of a Christchurch office) and the addition of new emissions data (staff working from home and wastewater). The result for 2021/22 was also abnormally low due to Auckland COVID-19 lockdowns between August and December 2021.

Table 2: Gross emissions profile by sources

		tCO_2e		
Source	Base year (2018/19)	Last year (2021/22)	This year (2022/23)	Percentage
Air travel	217.79	63.49	146.62	77.80%
Electricity	12.77	18.48	9.69	5.14%
Rental and private vehicles	6.05	2.04	7.58	4.02%
Wastewater (new source)	0.00	0.00	5.60	2.97%
Waste	0.86	0.76	5.02	2.66%
Accommodation	3.63	2.41	4.83	2.56%
Staff working from home (new source)	0.00	0.00	4.78	2.54%
Taxi travel	3.82	1.14	2.50	1.33%
Transmission and distribution losses	0.00	1.34	1.40	0.74%
Water supply	0.00	0.38	0.44	0.23%
Total	**244.92**	**90.35**	**188.46**	**100%**

Table 3: Emissions intensity by FTE and expenditure

Emissions intensity	Base year (2018/19)	Last year (2021/22)	This year (2022/23)
FTE (gross tCO_2e / unit)	3.16	0.91	1.63
FTE (gross mandatory tCO_2e / unit)	3.12	0.88	1.46
Operating revenue (gross tCO_2e / $Millions)	5.01	0.70	1.12
Operating revenue (gross mandatory tCO_2e / $Millions)	4.94	0.68	1.00

Progress against our emissions reduction targets

We have set science-aligned targets to keep global warming to less than 1.5 degrees of warming as required under the Carbon Neutral Government Programme and as a member of the Climate Leaders Coalition. Our targets are:

- **2025 target**: To reduce our gross emissions by 32% against a 2018 baseline (from 244.92 tCO_2e to 166.5 tCO_2e)
- **2030 target:** To reduce our gross emissions by 55% against a 2018 baseline (from 244.92 tCO_2e to 110.0 tCO_2e).

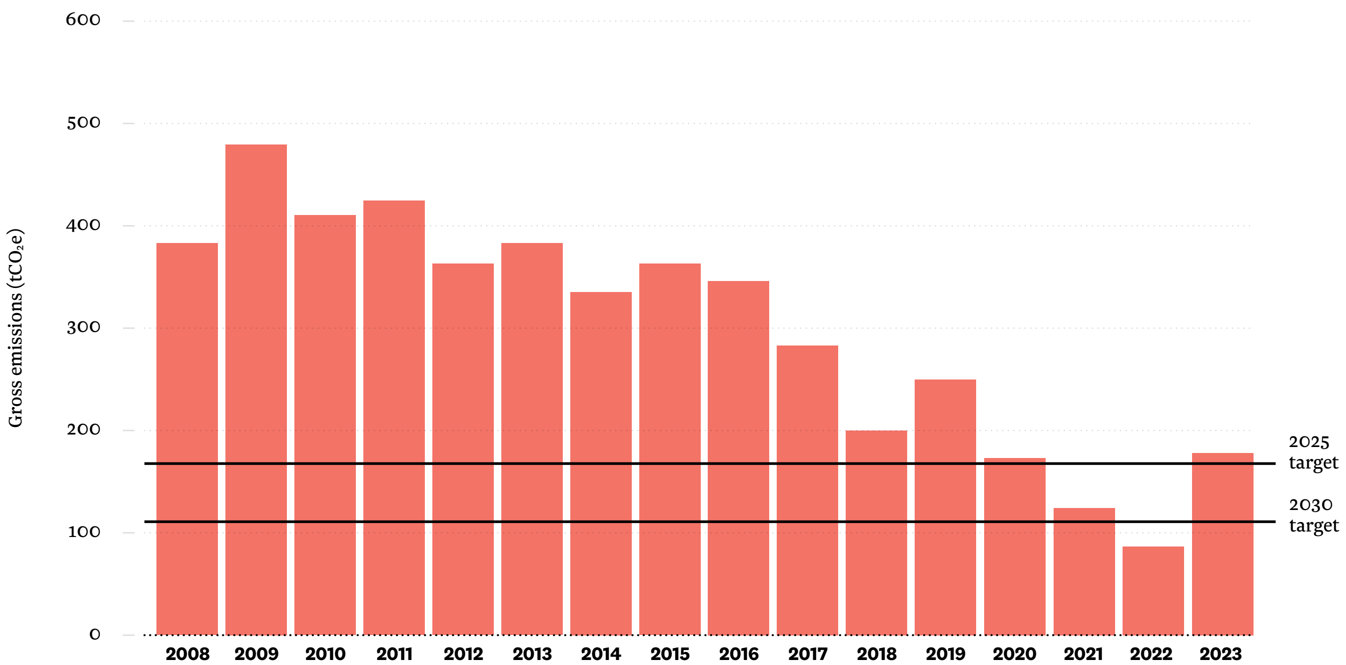
As at 30 June 2023, we have reduced our gross emissions by 23% against a 2018 baseline (from 244.92 tCO2e to 188.46 tonnes). This puts us on track to achieve both of our targets.

The following graph shows our carbon emissions over the last 15 years. Our carbon emissions have reduced from 383 tonnes of CO_2e in 2007/08 to 87.99 tonnes of CO_2e in 2021/22 (a 77% reduction in tonnes of CO_2e).

In 2022/23, we undertook the two key emissions reduction initiatives:

- Air travel emissions budgets: On 1 July 2022, we implemented an initiative which assigns an air travel emissions budget to each team within EECA (based on financial allocations) to help us be more mindful of and reduce our air travel emissions – our largest source of emissions.
- Waste audit: In August 2022, we commissioned a waste audit to assess our waste systems and provide advice on waste reduction. The report identified a number of improvement opportunities.

The following graph shows our carbon emissions over the last 16 years. Our carbon emissions have reduced from 383 tonnes of CO_2e in 2007/08 to 188 tonnes of CO_2e in 2022/23.



Offsetting our remaining emissions

We offset all our emissions through carbon credits, with New Zealand carbon credits selected where available.

Future reduction plans

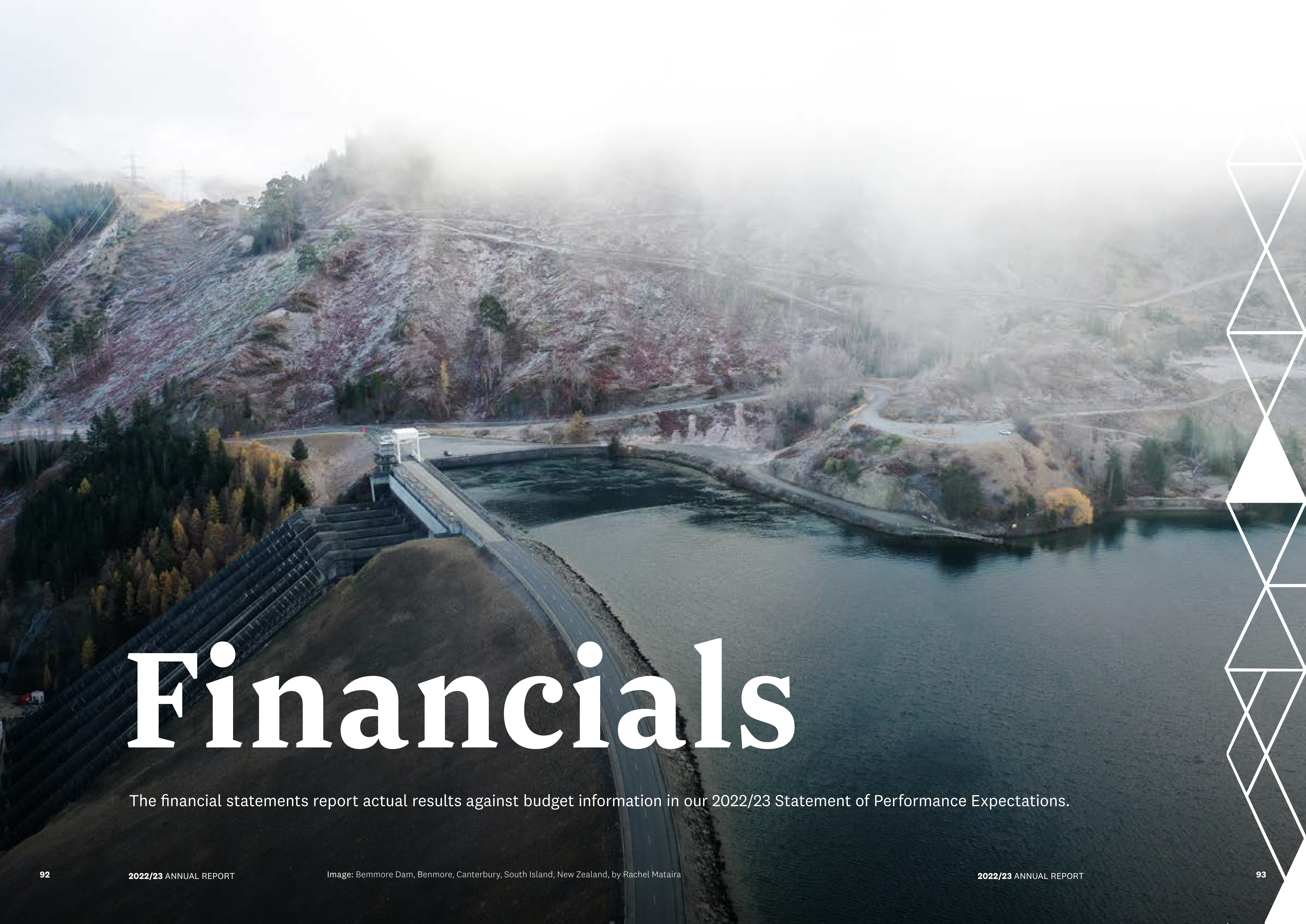
While we have already implemented several energy efficiency and emissions reduction initiatives at EECA, we know there are still some areas we can target. We have identified three key projects to help us further reduce our emissions:

- Improving our air travel emissions budget initiative.
- Implementing opportunities identified in our 2022 waste audit.
- Exploring opportunities for increased electricity efficiency in our offices.

Improving our data

We continue to work to ensure our emissions data is accurate as possible. In particular, we will explore whether there are improvements we can make to the way working from home emissions are measured.

Image: Waitaki Dam, Lake Waitaki, Canterbury, South Island, New Zealand, by Rachel Mataira



Financials

The financial statements report actual results against budget information in our 2022/23 Statement of Performance Expectations.

Image: Bemmore Dam, Benmore, Canterbury, South Island, New Zealand, by Rachel Mataira

Financial statements

Statement of comprehensive revenue and expense for the year ended 30 June 2023

	Notes	Actual 2023 $000	Budget 2023 $000	Actual 2022 $000
Revenue				
Funding from the Crown	2	162,558	264,885	128,139
Other revenue	2	6,030	1,475	1,360
Total revenue		**168,588**	**266,360**	**129,499**
Expenditure				
Personnel costs	3	15,325	15,916	12,844
Financial and industry support	16	112,197	232,990	93,888
Depreciation and amortisation expense	10, 11	266	265	365
Other expenses	4	19,400	18,074	15,730
Total expenditure		**147,188**	**267,245**	**122,827**
Surplus/(deficit)		**21,400**	**(885)**	**6,672**
Other comprehensive revenue and expense		-	-	-
Total comprehensive revenue and expense		**21,400**	**(885)**	**6,672**

See note 21 - Explanation of significant variances against budget.
The accompanying notes form part of these financial statements

Statement of financial position as at 30 June 2023

	Notes	Actual 2023 $000	Budget 2023 $000	Actual 2022 $000
Assets				
Current assets				
Cash and cash equivalents	5	35,712	13,039	48,206
Receivables	6	6,610	300	2,303
Investments	7	35,182	30,000	29,063
Prepayments		556	355	396
Crown loan debtors	8	2,123	1,851	1,856
Total current assets		**80,183**	**45,545**	**81,824**
Non-current assets				
Crown loan debtors	8	4,284	3,792	3,620
Property, plant and equipment	10	77	69	120
Intangibles	11	-	-	214
Total non-current assets		**4,361**	**3,861**	**3,954**
Total assets		**84,544**	**49,406**	**85,778**
Liabilities				
Current liabilities				
Payables and deferred revenue	12	19,008	9,723	29,799
Employee entitlements	13	1,090	1,211	876
Crown loan creditors	9	2,123	1,851	1,856
Lease incentives		69	57	69
Provisions	14	79	130	99
Total current liabilities		**22,369**	**12,972**	**32,699**
Non-current liabilities				
Crown loan creditors	9	4,284	3,792	3,620
Employee entitlements	13	102	32	92
Lease incentives		207	169	276
Total non-current liabilities		**4,593**	**3,993**	**3,988**
Total liabilities		**26,962**	**16,965**	**36,687**
Net assets		**57,582**	**32,441**	**49,091**
Equity				
Contributed capital	15	545	545	545
Accumulated surplus/(deficit)	15	57,037	31,896	48,546
Total equity		**57,582**	**32,441**	**49,091**

See note 21 - Explanation of significant variances against budget.
The accompanying notes form part of these financial statements

Statement of changes in equity for the year ended 30 June 2023

	Notes	Actual 2023 $000	Budget 2023 $000	Actual 2022 $000
Balance at 1 July		**49,091**	**33,326**	**42,419**
Total comprehensive revenue and expense for the year		21,400	(885)	6,672
Distributions from retained earnings		(12,909)	-	-
Balance at 30 June	15	**57,582**	**32,441**	**49,091**

See note 21 - Explanation of significant variances against budget.
The accompanying notes form part of these financial statements

Statement of cash flows for the year ended 30 June 2023

	Notes	Actual 2023 $000	Budget 2023 $000	Actual 2022 $000
Cash flows from operating activities				
Receipts from the Crown		147,801	264,885	137,860
Interest received		3,457	625	629
Receipts from other revenue		2,352	850	679
GST (net)		(666)	-	(2,240)
Financial and industry support payments		(111,386)	(230,734)	(97,301)
Payments to suppliers		(20,033)	(17,702)	(15,599)
Payments to employees		(15,101)	(15,633)	(12,785)
Net cash flows from operating activities		**6,424**	**2,291**	**11,243**
Cash flows from investing activities				
Receipts from the Crown - loan funding		3,334	2,000	3,500
Loan repayments received		2,229	2,024	1,729
Purchase of property, plant, and equipment		(9)	-	(8)
Net short-term investments (made)/realised		(6,000)	-	8,997
Payments to the Crown - loan repayments		(2,229)	(2,000)	(1,729)
Loans provided		(3,334)	(2,024)	(3,500)
Net cash flows from investing activities		**(6,009)**	**-**	**8,989**
Cash flows from financing activities				
Distributions to government*		(12,909)	-	-
Net cash flows from financing activities		**(12,909)**	**-**	**-**
Net increase/(decrease) in cash and cash equivalents		**(12,494)**	**2,291**	**20,232**
Cash and cash equivalents at the beginning of the year		48,206	10,748	27,974
Cash and cash equivalents at the end of the year	5	**35,712**	**13,039**	**48,206**

Short-term investments have been presented as a net item due to the short maturity period.

*Distributions to government represent funding transferred to Crown Infrastructure Partners (CIP) in relation to the Electric Ferry Project, which was novated to CIP to manage on 29 August 2022.

See note 21 - Explanation of significant variances against budget.
The accompanying notes form part of these financial statements

Reconciliation of the net surplus/(deficit) to net cash flow from operating activities

	2023 $000	2022 $000
Net surplus/(deficit)	**21,400**	**6,672**
Add/(less) non-cash items		
Depreciation and amortisation expense	266	365
Total non-cash items	266	365
Add/(less) movements in statement of financial position items		
(Increase)/decrease in receivables	(4,426)	(2,321)
(Increase)/decrease in prepayments	(160)	(59)
Increase/(decrease) in payables and deferred revenue	(10,860)	6,716
Increase/(decrease) in provisions	(20)	(189)
Increase/(decrease) in employee entitlements	224	59
Net movement in working capital items	(15,242)	4,206
Net cash flows from operating activities	**6,424**	**11,243**

Notes to the financial statements

1. Statement of accounting policies for the year ended 30 June 2023

Reporting entity

The Energy Efficiency and Conservation Authority (EECA) is a Crown entity as defined in the Crown Entities Act 2004 and is domiciled and operates in New Zealand. The relevant legislation governing EECA's operations includes the Crown Entities Act 2004 and the Energy Efficiency and Conservation Act 2000. EECA's ultimate parent is the New Zealand Crown.

EECA's primary objective is to provide services to the New Zealand public. EECA implements New Zealand Government strategies for energy efficiency, conservation and renewable energy in both the private and public sectors. EECA does not operate to make a financial return.

EECA has designated itself as a public benefit entity (PBE) for financial reporting purposes.

The financial statements for EECA are for the year ended 30 June 2023, and were approved by the Board on 31 October 2023.

Basis of preparation

The financial statements have been prepared on a going concern basis, and the accounting policies have been applied consistently throughout the period.

Statement of compliance

The financial statements have been prepared in accordance with the requirements of the Crown Entities Act 2004, which includes the requirement to comply with Generally Accepted Accounting Practice in New Zealand (NZ GAAP).

The financial statements have been prepared in accordance with Tier 1 PBE accounting standards.

These financial statements comply with PBE accounting standards.

Presentation currency and rounding

The financial statements are presented in New Zealand dollars and all values are rounded to the nearest thousand dollars ($000).

Changes to applicable reporting standards and interpretations

New or amended standards adopted

PBE FRS 48 Service Performance Reporting

PBE FRS 48 replaces the service performance reporting requirements of PBE IPSAS 1 and is effective for the year ending 30 June 2023. Further information on our applicaton of these changes can be found in the introduction section, page 31.

PBE IPSAS 41 Financial Instruments

PBE IPSAS 41 Financial Instruments replaces PBE IFRS 9 Financial Instruments and is effective for the year ending 30 June 2023. This PBE Standard establishes new requirements for the recognition, measurement, presentation, and disclosure of financial assets and financial liabilities. EECA has adopted PBE IPSAS 41 for the first time this year. Changes from adoption are minimal as the requirements are similar to those contained in PBE IFRS 9. Disclosures have been made in the relevant notes where required.

Standards issued and not yet effective and not early adopted

Standards and amendments that have been issued but are not yet effective and that have not been early adopted and that are relevant to the EECA are:

2022 Omnibus Amendment to PBE Standards

This Standard has been issued to amend the relevant Tier 1 and Tier 2 PBE Standards as a result of:

- PBE IPSAS 16 Investment Property: The amendments clarify that fair value measurement of self constructed investment property could begin before the construction is completed.
- PBE IPSAS 17 Property, Plant and Equipment: The amendments change the accounting for any net proceeds earned while bringing an asset into use by requiring the proceeds and relevant costs to be recognised in surplus or deficit rather than being deducted from the asset cost recognised.
- PBE IPSAS 30 Financial Instruments: Disclosures: The amendment specifically refers to disclosing the circumstances that result in fair value of financial guarantee contracts not being determinable.
- PBE IPSAS 19 Provisions, Contingent Liabilities and Contingent Assets: The amendments clarify the costs of fulfilling a contract that an entity includes when assessing whether a contract will be lossmaking or onerous (and therefore whether a provision needs to be recognised).

The changes are for financial statements covering periods beginning on or after 1 January 2023.

Summary of significant accounting policies

Significant accounting policies are included in the notes to which they relate.

Significant accounting policies that do not relate to a specific note are outlined below.

Goods and services tax (GST)

All items in the financial statements are exclusive of GST, with the exception of trade debtors and trade creditors, which are stated with GST included. Where GST is not recoverable as an input tax, then it is recognised as part of the related asset or expense.

The net amount of GST recoverable from, or payable to, the IRD is included as part of receivables or payables in the Statement of financial position.

The net GST paid to, or received from, the IRD, including the GST relating to investing and financing activities, is classified as a net operating cash flow in the Statement of cash flows.

Commitments and contingencies are disclosed exclusive of GST.

Income tax

EECA is a public authority and consequently is exempt from the payment of income tax. Accordingly, no provision has been made for income tax.

Budget figures

The budget figures are derived from the Statement of performance expectations as approved by the Board at the beginning of the financial year. The budget figures were prepared in accordance with NZ GAAP, using accounting policies that are consistent with those adopted by the Board in preparing these financial statements.

Cost allocation

EECA has determined the cost of outputs using the cost allocation system outlined below.

Direct costs are those costs directly attributable to an output. Indirect costs are those costs which cannot be identified in an economically feasible manner with a specific output.

Direct costs are charged directly to outputs. Indirect costs are charged to outputs based on cost drivers, and related activity or usage information.

There have been no changes to the cost allocation methodology since the date of the last audited financial statements.

Critical accounting estimates and assumptions

In preparing these financial statements EECA has made estimates and assumptions concerning the future. These estimates and assumptions may differ from actual results. None of the estimates and assumptions made are regarded as being significant.

Critical judgements in applying accounting policies

Management has exercised its judgement in applying accounting policies. None of the judgements exercised are critical.

Comparatives

As part of a review of the presentation of the financial report, we may change the presentation if it provides information that is more relevant to users of the financial report, and the revised structure is likely to continue. When making such changes in presentation, the comparative amounts will be reclassified to match current year classifications, and the reasons for the reclassifications are provided in the relevant notes.

2. Revenue

Accounting policy

Funding from the Crown

EECA is primarily funded from the Crown. This funding is restricted in its use for the purpose of EECA meeting the objectives specified in its founding legislation and the scope of appropriation funding.

EECA considers that there are no conditions attached to the funding and it is recognised as revenue at the point of entitlement. Revenue from the Crown is recognised as revenue when earned and is reported in the financial period to which it relates.

The fair value of revenue from the Crown has been determined to be equivalent to the amounts due in the funding arrangements.

Funding from Third Parties

Funding from Third Parties is recognised as revenue at the point of entitlement, unless there is an obligation to return the funds if the conditions of the funding are not met.

If there is such an obligation, the funding is initially recorded as revenue in advance and subsequently recognised as revenue when the conditions of the funding are met.

Provision of services

Services provided to third parties on commercial terms are exchange transactions. Revenue from these services is recognised in proportion to the stage of completion at balance date.

Interest revenue

Interest revenue is recognised using the effective interest method.

Breakdown of other revenue and further information

	2023 $000	2022 $000
Interest revenue	3,575	647
Discount on loan (note 8)	557	360
Rent receivable from property subleases	-	63
Revenue from Services to Other Agencies	403	-
Other revenue	39	29
Third party funding	1,456	261
Total other revenue	**6,030**	**1,360**

3. Personnel costs

Accounting policy

Superannuation schemes

Employer contributions to KiwiSaver are accounted for as defined contribution superannuation schemes and are expensed in the surplus or deficit as incurred.

Breakdown of personnel costs and further information

	2023 $000	2022 $000
Salaries and wages (including annual leave and other entitlements)	14,361	12,060
Defined contribution plan employer contributions	410	349
Professional development	265	171
Other employment -related costs	289	264
Total personnel costs	**15,325**	**12,844**

Employee remuneration

	Number of employees	
Total remuneration paid or payable ($)	**2023**	**2022**
100,000-109,999	7	7
110,000-119,999	14	12
120,000-129,999	22	9
130,000-139,999	1	4
140,000-149,999	3	6
150,000-159,999	5	3
160,000-169,999	8	1
170,000-179,999	2	4
180,000-189,999	1	1
190,000-199,999	-	1
200,000-209,999	-	-
210,000-219,999	-	2
230,000-239,999	1	-
250,000-259,999	1	-
260,000-269,000	2	1
270,000-279,999	1	-
380,000-390,000	-	-
390,000-399,000	1	-
Total Employees	**69**	**52**

During the year ended 30 June 2023, no payouts were provided for compensation and other benefits in relation to cessation. (2022: three employees, totalling $83,415).

Board member remuneration

	2023 $000	2022 $000
Board members' fees during the year were:		
E Trout (Chair appointed September 2019)	33	29
C Taylor (Deputy Chair appointed February 2017)	20	18
K Sherry (appointed February 2017)	17	15
L Wright (appointed September 2019)	17	15
N Smith (appointed September 2019)	17	15
L Lovell (appointed July 2021)	17	13
A Brantley (appointed July 2021)	17	15
Total fees paid	**138**	**120**

EECA has taken out Directors' and Offficers' Liability and Professional Indemnity insurance cover during the financial year in respect of liability or costs of Board members and employees.

No Board members received compensation or other benefits in relation to cessation (2022: $nil).

4. Other expenses

Breakdown of personnel costs and further information

	2023 $000	2022 $000
Fees to Audit New Zealand for audit of financial statements	79	73
Board members' fees	138	120
Rental and operating lease costs	1,138	1,139
Contract services	4,604	4,427
Marketing services	7,973	6,291
Website development and maintenance expenses	300	325
ICT software licensing, configuration and customisation costs*	3,505	2,253
Discount on loan (note 8)	557	360
Other expenses	1,106	742
Total other operating expenses	**19,400**	**15,730**

* ICT costs have been reclassified from Other expenses due to its materiality. Comparative information has also been reclassified accordingly.

Accounting policy

Operating leases

An operating lease is a lease that does not transfer substantially all the risks and rewards incidental to ownership of an asset to the lessee. Lease payments under an operating lease are recognised as an expense on a straight-line basis over the lease term. Lease incentives received are recognised evenly over the term of the lease as a reduction in rental expense.

Operating leases as lessee

The future aggregate minimum lease payments to be paid under non-cancellable operating leases are as follows:

	2023 $000	2022 $000
Not later than one year	1,214	1,170
Later than one year and not later than five years	3,089	4,140
Total non-cancellable operating leases commitments	**4,303**	**5,310**

The non-cancellable operating lease commitments consist of contractual amounts due for leased office equipment and premises. EECA leases offices in Auckland, Wellington and Christchurch. The Wellington lease expires on 30 June 2027 with the right to renew for a further term of six years. The Auckland lease expires on 28 June 2027 with the right to renew twice for a further term of three years each. The Christchurch lease expires on 01 March 2026 with the right to renew for a further term of three years.

5. Cash and cash equivalents

Accounting policy

Cash and cash equivalents are measured at amortised cost. Cash and cash equivalents includes cash on hand, deposits held on call with banks, and other short-term highly liquid investments with original maturities of three months or less.

Breakdown of cash and cash equivalents and further information

	2023 $000	2022 $000
Cash on hand	35,712	48,206
Total cash and cash equivalents	**35,712**	**48,206**

6. Receivables

Accounting policy

Receivables are recognised initially at fair value and subsequently measured at amortised cost, less an allowance for any expected credit losses using the simplified approach.

In measuring expected credit losses, receivables from the sale of goods and services have been grouped and assessed on number of days past due. Receivables from the sale of goods and services are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include the debtor being in liquidation.

The most significant receivables due at balance date are from the Crown for appropriations not yet received and a GST refund, with the remaining balance of receivables due from schools and other government agencies. These are guaranteed amounts, are all current and are therefore low risk. EECA has therefore assessed that the allowance for expected credit losses is nil.

Breakdown of receivables and further information

	2023 $000	2022 $000
Receivables (gross)	6,610	2,303
Total receivables	**6,610**	**2,303**
Total receivables comprises:		
Receivables from the sale of goods and services (exchange transactions)	72	63
Goods and services tax receivable from the Crown (non- exchange transactions)	2,906	2,240
Receivables from Crown Funding (non-exchange transactions)	3,632	-
	6,610	2,303

7. Investments

Accounting policy

Investments consist of bank term deposits. These term deposits are initially measured at the amount invested and carried at amortised cost, with interest subsequently accrued and added to the investment balance.

Breakdown of investments and further information

	2023 $000	2022 $000
Current portion		
Term deposits maturing within 12 months	35,182	29,063
Total cash and cash equivalents	**35,182**	**29,063**

Due to their short-term nature, and the investments being held with banks with high credit ratings, no expected credit losses are recognised on investment balances.

8. Crown loan debtors

Accounting policy

Loans are initially recorded at fair value, being the notional value of the loans at date of acquisition or origination less the discount necessary to take account of the time value of money calculated at an interest rate applicable to the creditworthiness of the debtor. Thereafter, interest is recognised in accordance with the effective interest rate method such that the discount will be amortised at the interest rate applicable to the date of acquisition or origination.

Breakdown of Crown loan debtors and further information

	2023 $000	2022 $000
Face value of the loans	6,870	5,765
Discount to be amortised	(463)	(289)
Carrying amount	**6,407**	**5,476**
Current (< 12 months)	2,123	1,856
Non-current (> 12 months)	4,284	3,620
Carrying amount	**6,407**	**5,476**

EECA, on behalf of the Crown, approves and administers loans to third parties to undertake specific energy efficiency projects. The loans are interest free and repayable at periods ranging from three to five years.

All such borrowers are public sector entities, including health boards, territorial authorities, schools and tertiary institutions. On this basis EECA has assessed that no impairment of these crown loan debtors is necessary.

9. Crown loan creditors

	2023 $000	2022 $000
Face value of the loans owed to the Crown	6,870	5,765
Discount to be amortised	(463)	(289)
Carrying amount	**6,407**	**5,476**
Current (< 12 months)	2,123	1,856
Non-current (> 12 months)	4,284	3,620
Carrying amount	**6,407**	**5,476**

EECA draw down funds from the Crown as loans which are approved and paid out to third parties. Repayments are received from third parties on a quarterly basis, and these are in turn repaid to the Crown.

The Crown Loan creditors balance reflect the balance of funds owing to the Crown in relation to these loans.

10. Property, plant and equipment

Accounting policy

Property, plant and equipment consists of the following asset classes: leasehold improvements, computer equipment, furniture and fittings, and office equipment.

All asset classes are measured at cost, less accumulated depreciation and impairment losses.

Depreciation

Depreciation is provided on a straight-line basis on all property, plant and equipment at rates that will write off the cost of the assets to their estimated residual values over their useful lives.

The useful lives and associated depreciation rates of major classes of property, plant and equipment have been estimated as follows:

Asset	Useful life	Depreciation
Computer equipment	3 to 5 years	33.33% to 20%
Office equipment	3 years	33.33%
Furniture and fittings	6 years	16.67%
Leasehold improvements	7 to 8 years	14% to 12.50%

Leasehold improvements are depreciated over the unexpired period of the lease or the estimated remaining useful lives of the improvements, whichever is the shorter.

Impairment of property, plant and equipment

EECA does not hold any cash-generating assets. Assets are considered cash generating where their primary objective is to generate a commercial return.

Non-cash-generating assets

The carrying amounts of property, plant and equipment are reviewed at least annually to determine if there is any indication of impairment. Where an asset's recoverable amount is less than its carrying amount, it will be reported at its recoverable amount and an impairment loss will be recognised. Losses resulting from impairment are reported in the Statement of comprehensive revenue and expense.

Breakdown of property, plant and equipment and further information

Movements for each class of property, plant and equipment are as follows:

	Office equipment $000	Furniture and fittings $000	Computer equipment $000	Leasehold improvements $000	Total $000
Cost					
Balance at 1 July 2021	22	77	232	291	622
Additions	8	-	-	-	8
Disposals	-	-	-	-	-
Balance at 30 June 2022	**30**	**77**	**232**	**291**	**630**
Balance at 1 July 2022	30	77	232	291	630
Additions	-	-	9	-	9
Disposals	-	-	-	-	-
Balance at 30 June 2023	**30**	**77**	**241**	**291**	**639**
Accumulated depreciation					
Balance at 1 July 2021	22	75	159	188	444
Depreciation expense	3	1	37	25	66
Balance at 30 June 2022	**25**	**76**	**196**	**213**	**510**
Balance at 1 July 2022	25	76	196	213	510
Depreciation expense	3	1	32	16	52
Elimination on disposals	-	-	-	-	-
Balance at 30 June 2023	**28**	**77**	**228**	**229**	**562**
Carrying amounts					
At 30 June 2021	-	2	73	103	178
At 30 June 2022	5	1	36	78	120
At 30 June 2023	2	-	13	62	77

There are no restrictions over the title of EECA's tangible assets, nor are any tangible assets pledged as security for liabilities.

11. Intangible assets

Accounting policy

Intangible assets consist of software applications that have a finite useful life and are recorded at cost less accumulated amortisation and impairment.

Staff training costs are recognised as an expense when incurred.

Costs associated with maintaining computer software are expensed when incurred.

Costs associated with the development and maintenance of EECA's website are recognised as an expense when incurred.

Amortisation

The carrying value of an intangible asset with a finite life is amortised on a straight-line basis over its useful life. Amortisation begins when the asset is available for use and ceases at the date that the asset is derecognised.

The useful lives and associated amortisation rates have been estimated as follows:

Asset	Useful life	Amortisation rate
Acquired computer software	2 to 3 years	50% to 33.3%

Impairment of intangible assets

EECA does not hold any cash-generating intangible assets. Assets are considered cash generating where their primary objective is to generate a commercial return.

Non-cash-generating assets

The carrying amounts of intangible assets are reviewed at least annually to determine if there is any indication of impairment. Where an asset's recoverable amount is less than its carrying amount, it will be reported at its recoverable amount and an impairment loss will be recognised. Losses resulting from impairment are reported in the Statement of comprehensive revenue and expense.

Breakdown of intangible assets and further information

Movements for each class of intangible assets are as follows:

	Acquired software $000	WIP $000	Total $000
Cost			
Balance at 1 July 2021	3,221	-	3,221
Additions	-	-	-
Disposals	-	-	-
Capitalised	-	-	-
Balance at 30 June 2022	**3,221**	**-**	**3,221**
Balance at 1 July 2022	3,221	-	3,221
Additions	-	-	-
Disposals	-	-	-
Capitalised	-	-	-
Balance at 30 June 2023	**3,221**	**-**	**3,221**
Accumulated amortisation			
Balance at 1 July 2021	2,708	-	2,708
Amortisation expense	299	-	299
Elimination on disposal	-	-	-
Balance at 30 June 2022	**3,007**	**-**	**3,007**
Balance at 1 July 2022	3,007	-	3,007
Amortisation expense	214	-	214
Elimination on disposal	-	-	-
Balance at 30 June 2023	**3,221**	**-**	**3,221**
Carrying amounts			
At 30 June 2021	513	-	513
At 30 June 2022	214	-	214
At 30 June 2023	-	-	-

There are no restrictions over the title of EECA's intangible assets, nor are any intangible assets pledged as security for liabilities.

12. Payables and deferred revenue

Accounting policy

Short-term payables are recorded at their face value.

Breakdown of payables and deferred revenue and further information

	2023 $000	2022 $000
Payables under exchange transactions		
Revenue in advance from other agencies	-	24
Accrued expenses	1,738	2,058
Other	477	504
Total payables under exchange transactions	**2,215**	**2,586**
Payables under non-exchange transactions		
Taxes payable (GST, PAYE, FBT)	235	173
Accrued expenses - financial & industry support	11,158	10,347
Appropriation received in advance - repayable to the Crown	5,269	16,394
Revenue in advance from third parties subject to conditions	131	299
Total payables under non-exchange transactions	**16,793**	**27,213**
Total payables	**19,008**	**29,799**

13. Employee entitlements

Accounting policy

Short-term employee entitlements

Employee benefits that are due to be settled within 12 months after the end of the period in which the employee renders the related service are measured based on accrued entitlements at current rates of pay. These include salaries accrued up to balance date, annual leave earned but not yet taken at balance date.

A liability and an expense are recognised for bonuses where there is a contractual obligation or where there is a past practice that has created a constructive obligation and a reliable estimate of the obligation can be made.

Long-term employee entitlements

Employee benefits that are due to be settled beyond 12 months after the end of the period in which the employee renders the related service, such as long service leave, are calculated on an actuarial basis. The calculations are based on:

- likely future entitlements accruing to staff, based on years of service, years to entitlement, the likelihood that staff will reach the point of entitlement, and contractual entitlement information; and
- the present value of the estimated future cash flows.

Presentation of employee entitlements

Annual leave and vested long service leave are classified as a current liability. Non-vested long service leave and retirement gratuities expected to be settled within 12 months of balance date are classified as a current liability. All other employee entitlements are are classified as a non-current liability.

Breakdown of employee entitlements and further information

	2023 $000	2022 $000
Current portion		
Accrued salaries and wages	431	283
Annual leave	629	575
Long service leave	30	18
Total current portion	**1,090**	**876**
Non-current portion		
Long service leave	102	92
Total non-current portion	**102**	**92**
Total employee entitlements	**1,192**	**968**

The present value of long service leave obligations depend on a number of factors that are determined on an actuarial basis. Two key assumptions used in calculating this liability include the discount rate and the salary inflation rate.

Expected future payments are discounted using forward discount rates derived from the yield curve of New Zealand government bonds. The discount rates used have maturities that match, as closely as possible, the estimated future cash outflows. The salary inflation factor has been determined after considering historical salary inflation patterns and after obtaining advice from an independant actuary. The discount rates ranged from 3.70% to 5.28% (2022: 2.96% to 4.02%), and an inflation factor of 2.92% (2022: 2.92%) was used.

Any changes in these assumptions will affect the carrying amount of the liability but the impact will not be material.

14. Provisions

Accounting policy

A provision is recognised for future expenditure of uncertain amount or timing when there is a present obligation (either legal or constructive) as a result of a past event, it is probable that an outflow of future economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

Breakdown of provisions and further information

	2023 $000	2022 $000
Current portion		
Quality assurance audits	79	99
Total current	79	99
Total provisions	79	99

Movements for each class of provision are as follows:

	Quality assurance audits $000	Total $000
Balance at 1 July 2021	288	288
Additional provisions made	99	99
Amounts used	(288)	(288)
Unused amounts reversed	-	-
Balance at 30 June 2022	99	99
Balance at 1 July 2022	99	99
Additional provisions made	79	79
Amounts used	(99)	(99)
Unused amounts reversed	-	-
Balance at 30 June 2023	79	79

Quality assurance audits provision

This provision covers the balance of audits due to be undertaken on insulation retrofits completed under the Warmer Kiwi Homes programme as at the end of the financial year. These costs are likely to be incurred over the three months ending 30 September 2023.

15. Equity

Accounting policy

Equity is measured as the difference between total assets and total liabilities. Equity is disaggregated and classified into the following components:

- contributed capital
- accumulated surplus/(deficit).

A significant proportion of the accumulated surplus is the result of revenue received that has been committed in the form of financial and industry support expenditure to be incurred in future years. Refer to Accounting policy, note 16.

Breakdown of equity and further information

	2023 $000	2022 $000
Contributed capital		
Balance at 1 July	545	545
Balance at 30 June	545	545
Accumulated surplus/(deficit)		
Balance at 1 July	48,546	41,874
Surplus/(deficit for the year)	21,400	6,672
Distributions from retained earnings	(12,909)	
Balance at 30 June	57,037	48,546
Total equity	57,582	49,091
Analysis of accumulated surplus/(deficit)		
Financial & industry support commitments	44,987	28,349
Funding for Electric Ferry project - see note below	-	12,909
Accumulated surplus - other	12,050	7,288
	57,037	48,546

EECA entered into a contract with Auckland Transport in February 2022 to co-fund the construction of two electric ferries, funding was approved under the COVID-19 Response and Recovery Fund. In April 2022 Minsters approved the transfer of this project from EECA to Crown Infrastructure Partners (CIP) as CIP's capabilities were more suitable for managing this project, and due to the existing relationship CIP held with Auckland Transport. EECA received $20 million in funding, and had paid out $7.091 million as at 30 June 2022. The remaining funding of $12.909 million was distributed to CIP in November 2022.

Capital management

EECA's capital is its equity, which comprises accumulated funds. Equity is represented by net assets.

EECA is subject to the financial management and accountability provisions of the Crown Entities Act 2004, which impose restrictions in relation to borrowings, acquisition of securities, issuing guarantees and indemnities, and the use of derivatives.

EECA has complied with the financial management requirements of the Crown Entities Act 2004 during the year.

EECA manages its equity as a by-product of prudently managing revenues, expenses, assets, liabilities, investments and general financial dealings to ensure that EECA effectively achieves its objectives and purpose, while remaining a going concern.

16. Financial and industry support expense commitments

Accounting policy

EECA provides financial and industry support to enable energy efficiency and conservation initiatives, including training and building industry capability, to be undertaken.

EECA becomes obliged to make a payment against contracts when prescribed activities are undertaken. Financial and industry support is accrued on the basis of the amount of work completed. The value of work yet to be completed under the contract is reported as commitments.

Breakdown of financial & industry support expense commitments and further information

	2023 $000	2022 $000
Total financial and industry support commitments		
Productive and low-emissions business	225,430	65,178
Efficient and low-emissions transport	20,498	31,964
Government leadership	19,930	46,682
Energy efficient homes	84,047	80,653
Total commitments	**349,905**	**224,477**
Payable		
Not later than one year	202,154	184,400
Later than one year and not later than five years	147,751	40,077
Later than five years	-	-
Total commitments	**349,905**	**224,477**
Future expenses and liabilities to be incurred on contracts that have been entered into at balance date are disclosed as commitments at the point a contractual obligation arises, to the extent that they are yet to be performed.		
How these commitments are funded		
Funding already received and held in retained earnings (see note 15)	44,987	41,258
Funding to be received in the future years	304,918	183,219
	349,905	**224,477**

On 20 May 2023 EECA entered into a conditional agreement with NZ Steel Limited to co-fund a decarbonisation Project, being the installation of an Electric Arc Furnace, at its Glenbrook steel mill. The agreeement went unconditional on 7th September 2023 and commits EECA to paying up to $140m as per the terms of the agreement. This has been included in the commitment figures above.

17. Contingencies

Contingent liabilities

EECA has no contingent liabilities at balance date (2022: $nil).

Contingent assets

EECA has no contingent assets at balance date (2022: $nil).

18. Related party transactions

EECA is controlled by the Crown.

Related party disclosures have not been made for transactions with related parties that are:

- within a normal supplier or client/recipient relationship; and
- on terms and conditions no more favourable that those that it is reasonable to expect EECA would have adopted in dealing with the party at arm's length in the same circumstances.

Further, transactions with other government agencies (for example, Government departments and Crown entities) are not disclosed as related party transactions when they are consistent with the normal operating arrangements between government agencies.

EECA has no other related party transactions that are required to be disclosed this year.

Key management personnel compensation

	2023	2022
Board members		
Remuneration	$138,188	$120,050
Full time equivalent members	1.0	1.1
Leadership team		
Remuneration	$1,683,475	$1,429,638
Full-time equivalent members	6.0	5.0
Total key management personnel remuneration	**$1,821,663**	**$1,549,688**
Total full time equivalent personnel	**7.0**	**6.1**

The full-time equivalent for Board members has been determined based on the Cabinet Fees Framework outlined in Cabinet Office Circular (CO (22) 2).

An analysis of Board member remuneration is provided in note 3.

19. Financial instruments

The carrying amounts of each class of financial assets and liabilities are as follows:

	2023 $000	2022 $000
Financial assets measured at amortised cost		
Cash and cash equivalents	35,712	48,206
Investments	35,182	29,063
Receivables	6,610	2,303
Crown loan debtors	6,407	5,476
Total financial assets measured at amortised cost	**83,911**	**85,048**
Financial liabilities measured at amortised cost		
Payables	4,284	3,620
Crown loan creditors	6,407	5,476
Total financial liabilities measured at amortised cost	**10,691**	**9,096**

Investments

These comprise cash and cash equivalents (see note 5), which include short-term deposits of less than 90 days and investments (see note 7).

Credit risk

Credit risk arises in that the organisation or organisations with which surplus monies are invested may default on repayment. The maximum credit risk of held-to-maturity investments is $70,893,765 (2022: $77,269,420).

Cash flow interest rate risk

EECA is subject to interest rate risk in that cash and cash equivalents are invested in term deposits with maturity dates of less than one year. It is possible that current market interest rates will rise causing the fair value of the investments to fall.

In accordance with the investment policy determined by the Board, surplus monies are invested with the following objectives:

» to ensure that the statutory requirements for investment are met

» to ensure that credit risk is minimised so far as is possible; and

» to ensure that liquid funds are available as and when necessary.

It is a statutory requirement that surplus monies are held in certain prescribed institutions, being registered banks and other highly credit-rated organisations.

All held-to-maturity monies are held with Westpac Banking Corporation Limited (Westpac), Kiwibank Limited and ASB Bank Limited. Standard and Poors has assessed Westpac as having an AA- credit rating and ASB as having an AA- credit rating. Fitch has assessed Kiwibank as having an AA rating.

Liquidity risk

As the primary objective of the investment programme is to ensure monies are available to meet operational needs, investments are made with terms of less than one year. Because interest rates are re-priced in the short term there is minimal loss of value when interest rates change.

Receivables

The only receivables outstanding are those due in the short term less than 90 days from the date of acquisition (see note 6). There is considered to be minimal credit risk attached to these receivables.

Loans

Credit risk

Loans are the residual sums due from a variety of persons to whom interest free loans have been made to achieve energy efficiency and conservation measures. All such borrowers are public sector entities, including health boards, territorial authorities, schools and tertiary institutions. As the emphasis on the lending programme is on energy efficiency objectives, credit risk is not regarded as a priority. Accordingly, no security is taken.

Fair value interest rate risk

The fair value of the loans as at 30 June 2023 was $6,148,954. This compares with the carrying value of the loans of $6,406,400 (see note 8).

If interest rates were 10 basis points higher, the fair value of the loans would be lower by $1,059.

As the amounts receivable under Crown loan debtors (see note 8) are equal to the amounts payable to the Crown under Crown loan creditors, then the effective fair value interest rate risk is $nil.

Payables

Payables fall due in the short term. As the cash and other cash and cash equivalents are also available in the short term, no liquidity risk arises.

20. Events after the balance date

On 20 May 2023 EECA entered into a conditional agreement with NZ Steel Limited to co-fund a major decarbonisation project at its Glenbrook steel mill. EECA is contributing $140 million towards this project, which is funded through the Government Investment in Decarbonisation (GIDI) fund. The agreement went unconditional on 7th September 2023 and is reflected in EECAs commitments in note 16.

On 19 July 2023, EECA entered into an unconditional agreement with Fonterra to co-fund up to $90 million towards cutting coal use across six dairy factories. This agreement is not reflected in EECAs commitments for the 22/23 financial year.

21. Explanation of significant variances against budget

Explanations for major variances from EECA's budgeted figures in the Statement of Performance Expectations are as follows:

Statement of comprehensive revenue and expense

Funding from the Crown

Crown Funding was $102.33 million lower than budgeted due to funding not drawn down for the Government Investment in Decarbonising Industry (GIDI), Warmer Kiwi Homes (WKH) and Infrastructure Reference Group (IRG) appropriations. The Financial and industry support note explanation below outlines the major reasons for this. In addition, WKH programme installations were lower than budgeted and deferral of milestones on IRG projects resulted in lower expenditure and therefore lower funding recognised for these programmes. Funding for these programmes have been redeployed to be available in future years.

Interest revenue

Interest Revenue was $2.95 million higher than budgeted due to a combination of high cash holdings and high interest rates.

Financial and industry support

Financial and industry support costs were $120.79 million lower than budget. This was primarily due to:

- Government Investment in Decarbonising Industry costs were $90.55 million lower than budget. The GIDI budget was initially based on the appropriation profile, however as the first year required programme design and implementation final expenditure was less than budgeted. Significant commitments were made in May and July, future budgets will be based on spend profile of commitments rather than appropriation.
- Expenditure across the Business, Transport and Government Leadership programmes being lower than budgeted of $25.82 million.

Statement of financial position

Cash and cash equivalents

Cash and cash equivalents were $22.67 million higher than budget. This is primarily due to:

- Higher than budgeted payables at year end representing accruals and funding to be repaid to the Crown
- Higher than budgeted interest revenue
- Lower than budgeted expenditure for existing commitments.

Receivables

Receivables were comprised of $2.91 million due for a GST refund, and $3.63 million to be received from Crown Funding.

Investments

Investments were $5.18 million more than budgeted due to lower expenditure than anticipated on exisiting commitments.

Payables

The high payables balance corresponds to high year-end accruals relating to the Warmer Kiwi Homes programme and a repayment due to the Crown.

Statement of cash flows

Receipts from the Crown

Receipts from the Crown is $117.08 million lower than budget due to a lower amount of funding drawn down as a result of underspends across multiple programmes during the year.

Financial and industry support payments

A decrease of financial and industry support cost payments reflects the decrease in costs as detailed above under explanation of Statement of comprehensive revenue and expense variances.

Independent Auditor's Report

Image: Te Mihi Geothermal, Taupō, North Island, New Zealand, by Rachel Mataira.

AUDIT NEW ZEALAND
Mana Arotake Aotearoa

Independent Auditor's Report

To the readers of the Energy Efficiency and Conservation Authority's financial statements and performance information for the year ended 30 June 2023

The Auditor-General is the auditor of the Energy Efficiency and Conservation Authority (the Authority). The Auditor-General has appointed me, Jacques Du Toit, using the staff and resources of Audit New Zealand, to carry out the audit of the financial statements and the performance information, including the performance information for appropriations, of the Authority on his behalf.

We have audited:

- the financial statements of the Authority on pages 94 to 121 that comprise the statement of financial position as at 30 June 2023, the statement of comprehensive revenue and expense, statement of changes in equity and statement of cash flows for the year ended on that date and the notes to the financial statements including a summary of significant accounting policies and other explanatory information; and
- the performance information which reports against the Authority's statement of performance expectations and appropriations for the year ended 30 June 2023 on pages 31 to 72.

Opinion

Unmodified opinion on the financial statements

In our opinion, the financial statements of the Authority:

- present fairly, in all material respects:
  - its financial position as at 30 June 2023; and
  - its financial performance and cash flows for the year then ended; and
- comply with generally accepted accounting practice in New Zealand in accordance with Public Benefit Entity Reporting Standards.

Qualified opinion on the performance information

In our opinion, except for the possible effects of the matter described in the Basis for our opinion section of our report, the Authority's performance information for the year ended 30 June 2023:

- presents fairly, in all material respects, for each class of reportable outputs:
  - its standards of delivery performance achieved as compared with forecasts included in the statement of performance expectations for the financial year; and

- its actual revenue and output expenses as compared with the forecasts included in the statement of performance expectations for the financial year; and

- presents fairly, in all material respects, for the appropriations:
    - what has been achieved with the appropriations; and
    - the actual expenses or capital expenditure incurred as compared with the expenses or capital expenditure appropriated or forecast to be incurred; and
- complies with generally accepted accounting practice in New Zealand.

Our audit was completed on 31 October 2023. This is the date at which our opinion is expressed.

The basis for our opinion is explained below. In addition, we outline the responsibilities of the Board and our responsibilities relating to the financial statements and the performance information, we comment on other information, and we explain our independence.

Basis for our opinion

Statement of service performance: Our work was limited with respect to the verification of reported energy-related emissions reductions from Authority-funded business programmes

The Authority has chosen to include a number of measures related to greenhouse gas emissions in its performance information. One of these measures is *Avoided energy-related emissions resulting from EECA-funded business programmes*.

We consider this measure to be material performance information because of the Authority's significant role and investment in supporting industry decarbonisation, and because of the public interest in climate change related information.

In measuring the emissions reductions from Authority funded business programmes for this measure, the Authority has in some instances relied on information reported by the funded businesses. Although the Authority has made improvements to its processes to independently verify reported emissions reductions, a substantial portion of the emission reductions reported against this measure has not been verified and we were unable to obtain sufficient alternative evidence that the reported performance is materially correct in the current year (including the quantified emissions as reported in footnote 10 on page 41) and in the comparative year to 30 June 2022.

As a result of this issue, our work over the emissions reductions reported within this measure was limited, and there were no practical audit procedures we could apply to obtain assurance over the reported results for the performance measure described above.

Without further modifying our opinion, we draw attention to pages 31 to 32 of the annual report, which outlines the uncertainty in the reported greenhouse gas emissions. Quantifying greenhouse gas emissions is subject to inherent uncertainty because the scientific knowledge and methodologies to determine the emissions factors and processes to calculate or estimate quantities of greenhouse gas sources are still evolving, as are greenhouse gas reporting and assurance standards.

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the Professional and Ethical Standards and the International Standards on Auditing (New Zealand) issued by the New Zealand Auditing and Assurance Standards Board. Our responsibilities under those standards are further described in the Responsibilities of the auditor section of our report.

We have fulfilled our responsibilities in accordance with the Auditor-General's Auditing Standards.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of the Board for the financial statements and the performance information

The Board is responsible on behalf of the Authority for preparing financial statements and performance information that are fairly presented and comply with generally accepted accounting practice in New Zealand. The Board is responsible for such internal control as it determines is necessary to enable it to prepare financial statements and performance information that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements and the performance information, the Board is responsible on behalf of the Authority for assessing the Authority's ability to continue as a going concern. The Board is also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless there is an intention to merge or to terminate the activities of the Authority, or there is no realistic alternative but to do so.

The Board's responsibilities arise from the Crown Entities Act 2004 and the Public Finance Act 1989.

Responsibilities of the auditor for the audit of the financial statements and the performance information

Our objectives are to obtain reasonable assurance about whether the financial statements and the performance information, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit carried out in accordance with the Auditor-General's Auditing Standards will always detect a material misstatement when it exists. Misstatements are differences or omissions of amounts or disclosures, and can arise from fraud or error. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of readers, taken on the basis of these financial statements and the performance information.

For the budget information reported in the financial statements and the performance information, our procedures were limited to checking that the information agreed to the Authority's statement of performance expectations.

We did not evaluate the security and controls over the electronic publication of the financial statements and the performance information.

As part of an audit in accordance with the Auditor-General's Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. Also:

- We identify and assess the risks of material misstatement of the financial statements and the performance information, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- We obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control.
- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board.
- We evaluate the appropriateness of the performance information which reports against the Authority's statement of performance expectations [and appropriation[s]].
- We conclude on the appropriateness of the use of the going concern basis of accounting by the Board and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Authority's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements and the performance information or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Authority to cease to continue as a going concern.
- We evaluate the overall presentation, structure and content of the financial statements and the performance information, including the disclosures, and whether the financial statements and the performance information represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Our responsibilities arise from the Public Audit Act 2001.

Other information

The Board is responsible for the other information. The other information comprises the information included on pages 2 to 129, but does not include the financial statements and the performance information, and our auditor's report thereon.

Our opinion on the financial statements and the performance information does not cover the other information and we do not express any form of audit opinion or assurance conclusion thereon.

In connection with our audit of the financial statements and the performance information, our responsibility is to read the other information. In doing so, we consider whether the other information is materially inconsistent with the financial statements and the performance information or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on our work, we conclude that there is a material misstatement of this other information, we are required to report that fact.

As described in the Basis for our opinion section above, we could not obtain sufficient evidence to confirm the reported energy-related emissions reductions by Authority-funded business programmes. Accordingly, we are unable to conclude whether or not the other information that includes information about reported energy-related emissions reductions by Authority-funded business programmes is materially misstated with respect to this matter.

Independence

We are independent of the Authority in accordance with the independence requirements of the Auditor-General's Auditing Standards, which incorporate the independence requirements of Professional and Ethical Standard 1: International Code of Ethics for Assurance Practitioners (including International Independence Standards) (New Zealand) (PES 1) issued by the New Zealand Auditing and Assurance Standards Board.

Other than in our capacity as auditor, we have no relationship with, or interests in, the Authority.

J. Du Toit

Jacques Du Toit
Audit New Zealand
On behalf of the Auditor-General
Wellington, New Zealand

Glossary

Keywords

Appropriation – a sum of money allocated by the Government for a particular use.

Biomass – organic matter used for bioenergy production (such as wood or organic waste).

Check testing – a performance test on a product covered by the Energy Efficiency Regulations to ensure it meets the Minimum Energy Performance Standards and Labelling requirements.

Co-funding – where two or more parties contribute to the cost of a project. For EECA, the government co-funding we contribute is usually up to 50% of the total project cost.

Decarbonisation – reducing the amount of carbon emissions produced, with the ultimate aim of eliminating it.

Electric vehicle (EV) – electric vehicles have an electric motor powered by a battery charged by connecting to an external source of electricity. Battery electric vehicles (BEVs) are powered only by the battery, while plug-in hybrid electric vehicles (PHEVs) have one engine powered by a battery and another fuelled generally using petrol or diesel.

Electricity levy – EECA receives an allocation of Electricity Industry Levy funding to carry out initiatives in accordance with our statutory functions.

Emissions – greenhouse gas emissions. Energy-related emissions are greenhouse gas emissions produced as a result of using energy.

Energy – the capacity of a physical system to perform work. Energy can be derived from physical or chemical resources, such as the sun or fossil fuels. We need energy for everything from manufacturing and electricity generation right through to powering our vehicles and homes.

Energy efficiency – reducing energy used to provide products and services.

Energy-related emissions – the greenhouse gas emissions that result from burning or producing fossil fuels (such as petrol, diesel, gas, and coal).

Feasibility study – a report that helps to inform a business whether it is viable to proceed with a proposed project.

Fossil fuels – includes coal, natural gas, LPG, crude oil, fuels derived from crude oil (including petrol and diesel).

Gas levy – EECA receives an allocation of Gas Safety, Monitoring and Energy Efficiency (GMSEE) Levy funding to carry out initiatives in accordance with our statutory functions.

Greenhouse gases – these include carbon dioxide, methane and nitrous oxide which contribute to climate change. In the energy sector, the burning of fossil fuels (oil, coal, gas) for heat, transport or electricity generation creates greenhouse gas emissions.

Low-emissions economy – an economy based on low-carbon energy sources and therefore produces minimal greenhouse gas emissions into the atmosphere, specifically carbon dioxide.

Low-emissions vehicle (LEV) – LEVs use our renewable electricity advantage to significantly reduce greenhouse gas emissions. LEVs include battery electric vehicles, plug-in hybrid vehicles and hydrogen fuel cell vehicles (if the hydrogen is produced using renewable electricity).

Partnership – a contractual agreement between and organisation and EECA.

Petroleum levy – EECA receives an allocation of Petroleum or Energy Fuel Monitoring (PEFM) Levy funding to carry out initiatives in accordance with our statutory functions.

Process heat – energy used for commercial and industrial processes, manufacturing, and heating. It generally involves the use of coal, gas, wood, or electricity.

Product class – a group of products as defined in schedule 1, 2, 2A, and 2B of the Energy Efficiency Regulations, for example, domestic clothes dryers.

Public sector – the public sector comprises four sectors: public service, state services, State sector and the public sector. It includes both central and local government organisations.

Renewable energy – energy produced from hydro, geothermal, biomass, wind, solar and marine sources.

Retrofit – an installation of heating or insulation into an existing home (via Warmer Kiwi Homes).

Service provider – an organisation contracted by EECA to provide a service.

State sector – includes the core public service, within which the state services sit.

Stationary energy – the combustion of fuel for energy for uses other than transport, e.g. for electricity generation and production of industrial heat.

Sustainable energy – energy that serves present needs without compromising the ability of future generations to meet their needs. It includes renewable energy and energy efficiency.

Energy and emissions measurement units and context of scale[25]

Unit used in this document	Definition	Example
PJ	**Petajoule** - the unit most often used to measure energy production and use on a national scale in New Zealand. Energy savings are valued using the marginal cost of electricity supply. One PJ is equivalent to a quadrillion joules (10^{15}).	**New Zealand households use a total of 83.39 PJ of energy per year (excluding transport).** **Split by fuel type:** **» 47.54 PJ – electricity** **» 8.14 PJ – renewables** **» 7.19 PJ – natural gas** **» 20.27 PJ – oil (e.g. petrol and diesel)** **» 0.24 PJ – coal**
GWh	**Gigawatt hour** - a watt hour is a measure of electrical energy equivalent to a power consumption of one watt for one hour. One GWh is equivalent to one billion watt hours, one million kilowatt hours, and 3,600 joules.	**Annually, the Manapōuri hydro power station supplies 4,500 GWh of electricity and New Zealand households use 18,253 GWh of energy (from all fuel types).**
kWh	**Kilowatt hour** - a watt hour is a measure of electrical energy equivalent to a power consumption of one watt for one hour. One kWh is equivalent to 1,000 watt hours.	**The average New Zealand household uses 9,869 kWh of energy per year.**

Unit used in this document	Definition	Emissions produced by an average New Zealand household	Emissions produced by one light passenger vehicle in New Zealand	Emissions produced by New Zealand's light passenger vehicle fleet
$ktCO_2e$	**Kilotonnes of carbon equivalent emissions** - a unit used to indicate the global warming potential of greenhouse gases, using carbon dioxide (CO_2) as a reference gas. One kilotonne of CO_2e is equivalent to 1000 tonnes of CO_2e.	**0.0015 tCO_2e**	**0.0017 $ktCO_2e$**	**5,270 $ktCO_2e$**
tCO_2e	**Tonnes of carbon equivalent emissions** - a unit used to indicate the global warming potential of greenhouse gases, using carbon dioxide (CO_2) as a reference gas. One tonne of CO_2e is equivalent to 1000 kilograms of CO_2e.	**1.51 tCO_2e**	**1.72 tCO_2e**	**5,270,236 tCO_2e**
$kgCO_2e$	**Kilograms of carbon equivalent emissions** - a unit used to indicate the global warming potential of greenhouse gases, using carbon dioxide (CO_2) as a reference gas. One kilogram of CO_2e is equivalent to 1000 grams of CO_2e (gCO_2e).	**1,506 $kgCO_2e$**	**2,426 kgCO2e**	**5,270,235,734 $kgCO_2e$**

[25] Data sources: Household Estimates by Tenure, Statistics New Zealand (2023); Energy Balance Tables, Ministry of Business, Innovation and Employment (2022); Measuring Emissions - A Guide for Organisations, Ministry for the Environment (2023); internal vehicle fuel consumption data, Ministry of Transport (2022); and Future State Model VKT/vehicle numbers data, Ministry of Transport (2022).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