



# Consultation: 2024/25 energy levies funding proposal and related work programme

08 January –  
24 January 2024

EECA

TE TARI TIAKI PŪNGAO  
ENERGY EFFICIENCY & CONSERVATION AUTHORITY



# Contents

<b>How to make a submission</b> .....	<b>3</b>
<b>Context</b> .....	<b>4</b>
About EECA .....	4
Our strategy.....	5
How we are funded .....	6
Who pays the energy levies.....	7
Positive impacts from clean and clever energy .....	7
<b>Levy funding proposal and draft work programme for 2024/25</b> .....	<b>10</b>
EECA’s approach to providing information on the levy funding proposal.....	10
Proposed PEFM levy-funded programmes.....	12
Proposed Electricity and GSMEE levy-funded programmes .....	13
<b>Appendices</b> .....	<b>20</b>
Appendix 1: Proposed levy-related work programme and budget for 2024/25 .....	21
Appendix 2: Consulted levy-related work programme and budget for 2023/24 .....	22
Appendix 3: Notes on our financial projections.....	23
Appendix 4: Legal context for this consultation.....	24
Appendix 5: Report on EECA’s levy-funded activities in 2022/23 .....	25



# How to make a submission

## What is this consultation paper about?

This consultation document invites submissions on the Energy Efficiency and Conservation Authority's (EECA) levy funding proposal and related work programme for the period of 1 July 2024 to 30 June 2025. EECA is proposing to recover funding from three energy levies during this period:

1. Petroleum or Engine Fuel Monitoring (PEFM) levy
2. Electricity Industry (Electricity) levy
3. Gas Safety, Monitoring and Energy Efficiency (GSMEE) levy.

Consultation on EECA's levy funding proposal is required under section 129A of the Electricity Industry Act 2010 for the Electricity levy, and section 14A of the Energy (Fuels, Levies, and References) Act 1989 for the GSMEE levy and the PEFM levy. The legal context for this consultation is outlined in Appendix 4 (page 25).

## How can you make a submission?

All submissions must be received by **5:00pm Wednesday 24 January 2024**.

**Email:** You can provide your submission via email to [levyconsultation@eeca.govt.nz](mailto:levyconsultation@eeca.govt.nz) with 'EECA 2024/25 levy consultation submission' in the subject line.

**Post:** Alternatively, you can post a physical submission to EECA, Level 8, 44 the Terrace, Wellington 6011. Please address to 'EECA levy consultation'.

Submissions will be acknowledged upon receipt (by email). We will also write a formal letter of response to each submission.

All submissions will eventually be published on our website. Please indicate if there is any information in your submission you wish to provide on a confidential basis and do not want published. EECA is subject to the Official Information Act (OIA) 1982, which means we may be required to release information unless there is a good reason to withhold it. If you indicate there is a part of your submission that should not be published, we will consult with you before deciding to release or publish that information.

If you have any questions about the contents of this consultation document or the submission process, please email us at [levyconsultation@eeca.govt.nz](mailto:levyconsultation@eeca.govt.nz).

## Next steps

The EECA Board will consider all submissions before presenting EECA's levy funding request to the Minister of Energy and Resources in early 2024. The approved levy funding will be announced by the Government in its 2024 Budget and related appropriations, which is expected to take place in May 2024. The levy funding will be included in EECA's Statement of Performance Expectations for 2024/25, which will be published on the EECA website by 30 June 2024.

# 1 Context



## About EECA

### Our purpose

EECA is a Crown entity established under the Energy Efficiency and Conservation Act 2000 (EEC Act). Under the Act, EECA exists to encourage, promote, and support energy efficiency, energy conservation, and the use of renewable sources of energy.

Our mission is to mobilise New Zealanders to be world leaders in clean and clever energy use. We want New Zealand to have a sustainable energy system that supports the prosperity and wellbeing of current and future generations.

### Our three levers

We use a combination of three important levers to make progress towards our goals:

1. *Regulating*

Our regulations and standards mean New Zealanders have access to, and are encouraged to use, the best performing new products and technologies available internationally, including vehicles – for home, commercial and industrial use, saving money and energy.

2. *Co-investing*

When there are significant, evidenced market barriers for the adoption of clean and clever energy technology, we use our expertise to target investment through co-funding mechanisms.

3. *Motivating people*

We provide evidenced-based education and information to New Zealanders and businesses to help them make informed choices – lowering energy bills, improving productivity, and future proofing for a clean energy economy.

### Our investment approach

We have five strategic focus areas (as shown over the page). The programmes we design and implement within these focus areas are guided by opportunities for impact and align with New Zealand's energy goals. We work with a wide range of stakeholders, clients, and New Zealanders to effectively deliver on our purpose.

## 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.

## How we are funded

EECA's activities are primarily funded by the Crown from general appropriations. Our current appropriations within Vote Business, Science, and Innovation are outlined on pages 17-18 of our [Statement of Performance Expectations 2023/24](#).

### **EECA receives funding from energy levies**

Some of EECA's activities relate to levies on electricity, natural gas and engine fuels (i.e. petrol, diesel, ethanol and biodiesel). The Government collects energy levies and *partially* invests them in EECA's programmes. The three energy levies are:

1. The Petroleum or Engine Fuel Monitoring (PEFM) levy
2. The Electricity Industry (Electricity) levy
3. The Gas Safety, Monitoring and Energy Efficiency (GSMEE) levy.

Energy levy funding is appropriated to EECA under the 'Energy Efficiency and Conservation' appropriation, which is limited to operational and policy outputs in accordance with our statutory functions under the EECA Act and the Government's energy strategies.

EECA does not seek to recover 100% of the forecast cost of our levy-related programmes from the energy levies. Instead, we seek a percentage, with the balance covered by EECA's baseline Crown funding. This is because:

- the Government has provided specific EECA baseline Crown funding to achieve additional results in the move to renewable sources of energy for transport; and
- the method for allocating overheads to levy-related activities and assessing the proportion of programme costs across levy sources is subjective, albeit based on robust assumptions, and consequently we have chosen to take a conservative approach in not seeking to fully recover all assessed costs from the levies.

### **EECA must consult with levy payers on its proposed energy levies funding request**

The relevant legislation (see Appendix 1 on page 25) requires EECA to consult with levy payers each year on our levy funding proposal and consider submissions before presenting our levy funding request to the Minister of Energy and Resources. In this document, we are consulting on our levy funding proposal for the period of 1 July 2024 to 30 June 2025 (2024/25).

## Who pays the energy levies

### Electricity Industry Levy

Section 128 of the Electricity Industry Act 2010 provides for a levy on electricity industry participants. The funds recovered by this levy meet many of the costs of the Electricity Authority. The EECA portion of the levy is collected from electricity industry participants that purchase electricity from the wholesale market (i.e. typically electricity retailers).<sup>1</sup> The final 2024/25 Electricity levy rate will be published in the New Zealand Gazette in May 2024.<sup>2</sup>

### Petroleum or Engine Fuel Monitoring (PEFM) levy

Section 24 of the Energy (Fuels, Levies and References) Act 1989 (EFLR Act) provides for the collection of a levy on each litre of petroleum or engine fuel sold (petrol, diesel, ethanol, and biodiesel). The PEFM levy is payable by fuel importers, who pass on the cost on to consumers. Imported petrol and diesel is levied by the New Zealand Customs Service at the port of import, whereas imported oil is levied at the refinery once processed into the finished product.

The indicative PEFM levy rate for 2024/25 is 0.70 cents/litre, including 0.20 cents/litre for the variable EECA cost and 0.50 cents/litre for non-EECA activities. The final levy rate will be published in the New Zealand Gazette in May 2024.<sup>2</sup>

### Gas Safety, Monitoring and Energy Efficiency (GSME) levy

Section 23 of the EFLR Act provides for the collection of a levy on piped natural gas, except for gas which is sold for used as a feedstock or for the generation of electricity or is liquefied petroleum gas. The GSME levy is payable by sellers of piped gas to gas retailers and gas retailers who sell piped gas.

The indicative GSME levy rate for 2024/25 is 5.40 cents/GJ, including 3.40 cents/GJ for the variable EECA cost and 2.00 cents/GJ for non-EECA activities. The final levy rate will be published in the New Zealand Gazette in May 2024.<sup>2</sup>

## Positive impacts from clean and clever energy

### Economic impacts

Improving energy efficiency saves money across the economy. New Zealand spends approximately \$26 billion dollars on energy each year and EECA estimates that around 15–20% of energy use could be saved through improved energy efficiency by 2035.<sup>3</sup>

#### *Lower energy prices*

In an efficient and competitive market, less energy will be used. This produces a mix of economic benefits and wealth transfers in the form of lower energy prices for energy users. Price reductions tend

<sup>1</sup> [gazette.govt.nz/notice/id/2023-au2819](https://www.gazette.govt.nz/notice/id/2023-au2819).

<sup>2</sup> [gazette.govt.nz](https://www.gazette.govt.nz).

<sup>3</sup> EECA analysis using the Ministry of Business, Innovation and Employment's *Energy Balance 2022* and *Energy Prices 2022*.

to be larger in markets with convex supply curves (such as electricity), where the cost of more production tends to increase steeply as demand increases.

#### *Increased energy productivity*

Energy efficiency can be achieved by using less energy to deliver the same services or using the same amount of energy to deliver a greater level of service. Improved energy efficiency increases energy productivity, which supports New Zealand businesses and exporters to become more competitive and profitable.

#### *Reduced/delayed investment*

Electricity efficiency can help to reduce peak demand, delivering system-wide benefits to New Zealanders in the form of reduced or delayed investment in grid and distribution infrastructure, and less volatile wholesale prices.<sup>4</sup> Our research indicates that electricity efficiency measures can be deployed at a lower equivalent cost than new renewable generation, and that implementing these measures would make it easier to meet new demand arising from electrification.<sup>5</sup>

#### *Resilience and security*

Switching to renewable energy solutions where possible also reduces our dependence on fossil fuels, increases our energy security and makes us more resilient to fluctuating commodity prices.

#### *Supporting New Zealand's clean green export image*

New Zealand's 'clean green' environmental image is a key driver of the value of goods and services in the international marketplace. A low-emissions economy, including an efficient and low-emissions energy sector, can help support our clean green exporting reputation.

#### *Avoiding the cost of offshore credits*

New Zealand needs to unlock emissions reductions, including from the energy sector, at speed and at scale to meet our international and domestic emissions reductions targets (outlined in the 'environmental impacts' section below). Without this acceleration, New Zealand risks needing to buy costly offshore credits to make up the shortfall. Treasury's latest cost estimates range from \$3.3 to \$23.7 billion.<sup>6</sup>

## **Environmental impacts**

#### *Reducing the effects of climate change*

Climate change is caused by rapidly increasing greenhouse gas emissions in our atmosphere. This affects our environment, for example, by increasing the frequency and intensity of weather events. Over 40% of New Zealand's gross greenhouse gas emissions come from energy use. Emissions reductions at speed and at scale can help slow climate change and preserve the environment for future generations. Efficient energy use and switching to renewable energy sources provides an opportunity to reduce New Zealand's emissions and the related effects on the environment.

<sup>4</sup> Concept Consulting Group Limited, *What is the case for electricity efficiency initiatives?* (2017).

<sup>5</sup> [www.eeca.govt.nz/insights/eeca-insights/energy-efficiency-first/](http://www.eeca.govt.nz/insights/eeca-insights/energy-efficiency-first/) (2019).

<sup>6</sup> [www.treasury.govt.nz/sites/default/files/2023-04/cefa23.pdf/](http://www.treasury.govt.nz/sites/default/files/2023-04/cefa23.pdf/) (2023).



### *Meeting New Zealand's emissions obligations*

Under the Paris Agreement (a legally binding international agreement) New Zealand has committed to reducing our greenhouse gas emissions to 50% below 2005 levels by 2030. 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. The reduction of emissions from energy use is vital to New Zealand meeting these targets.

## **Social impacts**

### *Disposable income*

Ensuring that poor performing, inefficient appliances are not available for sale in New Zealand saves households and businesses money on their energy bills for the lifetime of those appliances. Since the New Zealand Energy Efficiency (Energy Using Products) Regulations commenced in 2002, over 94 million products have been sold under the regulations, resulting in a national benefit of \$2 billion.<sup>7</sup>

### *Improved health and wellbeing*

There are proven health benefits from reducing pollution associated with the use of fossil fuels for heat and transport. Air pollution is linked to significant health impacts including increased prevalence of childhood asthma, increased hospitalisations with cardiovascular and respiratory issues, and premature death.<sup>8</sup>

<sup>7</sup> National benefit is calculated using long-run marginal cost of electricity production, which is based on a rate of 8.79 cents per kilowatt hour.

<sup>8</sup> Health impacts of exposure to human-made air pollution, Tatauranga Aotearoa Statistics New Zealand (2023).

# 2 Levy funding proposal and draft work programme for 2024/25



## EECA's approach to providing information on the levy funding proposal

### Detailed information on proposed levy-funded programmes

We provide detailed information on the programmes we are proposing to be partially funded by the levies, including the need for each programme and the expected outputs and benefits they will deliver. Where appropriate or practicable, we outline the link between the groups being levied and whether they benefit from, or cause a need for, a particular levy-funded programme. Providing this information helps increase transparency about the use of levy funding for our programmes and helps us to consult with levy payers and other parties significantly affected by the levy.

### Levy-related programmes are only partially funded by levies

We do not seek to recover 100% of the forecast cost of our levy-related programmes from the levies. Instead, we are proposing to recover 55% of the forecast costs in 2024/25, with the balance covered by EECA's baseline Crown funding. This is because:

- the Government has provided specific additional EECA baseline Crown funding to achieve additional results in the move to renewable sources of energy for transport
- the method for allocating overheads to levy-related activities and assessing the proportion of programme costs across levy sources is subjective, albeit based on robust assumptions and consequently we have chosen to take a conservative approach in not seeking to fully recover all assessed costs from the levies.

We acknowledge previous feedback from submitters asking us to consider increasing government funding for EECA's levy-related programmes, for example, through Emissions Trading Scheme (ETS) proceeds. However, because our levy-related programmes are caused by or benefit narrow groups, we consider a 'user pays' levy-funded system is more appropriate than other broader revenue sources like ETS proceeds.

### Pooling of Electricity levy and GSMEE levy funding

The use of multiple fuels (i.e. electricity and gas) by many businesses is driving the need to give EECA greater operational flexibility and avoid the complexity and administrative costs of making strict judgements about which levy can be used when a programme cuts across multiple fuel types. Consequently, Electricity and GSMEE levy funding is pooled to partially cover relevant programmes. Electricity levies will continue to pay the majority share due to our regulatory-related programmes having a predominant focus on electricity products and appliances. However, we periodically review the split of funding between the two levies to ensure each contribution is fair and equitable. This approach is permitted by the Energy (Fuels, Levies, and References) Act 1989, which allows for the creation of a pool of levy funding for EECA to use towards any activities within its statutory function.

## EECA is proposing to recover \$20.30 million from three energy levies in 2024/25

In 2024/25, EECA's activities with most direct relevance to the PEFM, Electricity, and GSMEE levies are forecast to cost \$36.68 million. We are proposing to recover 55% of this cost from the energy levies, as shown in the table below:

Levy-related programme	Forecast cost of levy-related activities (\$ million)				Difference
	2023/24		2024/25		
	PEFM levy	Electricity and GSMEE levies	PEFM levy	Electricity and GSMEE levies	
Low Emission Transport Fund	26.05	-	25.89	-	-0.16
Low Emissions Transport Information Provision	2.56	-	1.73	-	-0.83
Standards and Regulations (Residential)	-	2.57	-	2.22	-0.35
Standards and Regulations (Business)	-	2.57	-	2.22	-0.35
Large Energy Users	-	0.73	-	0.63	-0.10
Technology Demonstration	-	2.37	-	1.75	-0.62
Sector Decarbonisation	-	1.04	-	1.17	+0.13
Industry Development	-	0.29	-	0.26	-0.03
NABERSNZ	-	0.23	-	0.25	+0.02
Local Authorities	-	0.56	-	0.56	Nil
Subtotal	28.61	10.36	27.62	9.06	
<b>Total forecast cost of EECA's levy-related activities</b>		<b>38.97</b>		<b>36.68</b>	-2.29
<b>Amount proposed to be recovered from levies</b>		<b>20.30 (52%)</b>		<b>20.30 (55%)</b>	Nil
Proposed PEFM levy funding		<b>13.50</b>		<b>13.50</b>	Nil
Proposed Electricity levy funding		<b>5.10</b>		<b>5.10</b>	Nil
Proposed GSMEE levy funding		<b>1.70</b>		<b>1.70</b>	Nil
<b>Balance proposed to be covered by EECA</b>		<b>18.67 (48%)</b>		<b>16.38 (45%)</b>	-2.29

More detail on the proposed levy-funded programmes for 2024/25 is provided in the following section.

## Proposed PEFM levy-funded programmes

In 2024/25, we are seeking \$13.5 million sourced from the PEFM levy (no change from 2023/24).

### Efficient and low-emissions transport programmes

*Link to the PEFM levy*

The transport sector is heavily reliant on fossil fuels – ninety-nine percent of all transport fuel is fossil-fuel and energy use in the sector is responsible for over 18% of New Zealand’s total emissions. EECA is playing a key role in supporting the market transition to a low-emissions transport sector through working with key transport industry players, educating end users, delivering public charging infrastructure, and demonstrating technologies and other solutions that are in the early stages of market adoption. Increased uptake of low-emissions vehicles, technologies, and fuels will reduce fossil fuel consumption, contribute to New Zealand meeting its domestic and international emissions reduction obligations, reduce harmful air pollutants, save money, diversify the sources of our transport energy, and enhance energy security in the long run.

*Proposed programmes for 2024/25*

#### Low Emission Transport Fund (LETf)

The Low Emission Transport Fund (LETf) co-invests in the demonstration and uptake of low-emissions transport options to support the energy efficiency and decarbonisation of the New Zealand transport sector.

The fund currently aims to demonstrate innovative solutions that will overcome barriers to enable future adoption and deployment of low-emissions options and reduce energy related emissions in the transport sector. We address market and organisational barriers through co-investment and diffusion of new knowledge and learnings, and sharing knowledge and learnings to stimulate wider replication of successful projects and solutions in the transport sector.

For more information, visit our website: [eeeca.govt.nz/co-funding/transport-emission-reduction/low-emission-transport-fund](https://eeeca.govt.nz/co-funding/transport-emission-reduction/low-emission-transport-fund).

In 2024/25, we expect to:

- Commit co-funding to low-emissions transport projects
- Support the completion of existing project milestones due in the year
- Deliver learning outcomes and communicate these to aid the development of business cases and showcase potential.

## Low Emissions Transport Information Provision

The Low Emissions Transport Information Provision Programme provides objective and authoritative information about the benefits and costs of low-emissions transport options (including electric vehicles). The programme engages New Zealanders about electric and low-emissions vehicles and transport modes and reinforce motivations like the cheaper running costs and environmental benefits. We address key barriers such as uncertainty about battery life and afterlife, range anxiety, and uncertainty about charging. We also aim to build awareness of the link between transport and carbon emissions, which our research shows many New Zealanders do not understand.

In 2024/25, we expect to:

- Engage our target audiences on low-emissions transport behaviour
- Continue to develop information and insights on the state of electric vehicle and low-emissions vehicle technology and the implications for New Zealand and share this with stakeholders working to the same objectives
- Publish information about low-emissions vehicles and transport behaviours on our website, social media, and emails, which will target behaviour change
- Provide guidance and advice to motorists, car dealers, and other industry players
- Manage productive stakeholder relationships with key partners working on the same objectives.

## Proposed Electricity and GSMEET levy-funded programmes

In 2024/25, we are seeking to recover \$5.1 million from the Electricity levy and \$1.7 million from the GSMEET levy (no change from 2023/24).

### Commercial and residential standards and regulations programmes

*Link to the Electricity levy*

Our regulations and standards mean New Zealanders have access to, and are encouraged to use, the best performing new products and technologies available internationally, saving money and energy. Businesses and residential households benefit directly from EECA's Standards and Regulations Programme whenever they purchase appliances or equipment covered by the programme. Products subject to energy performance regulations will use less energy (particularly electricity), for the same output, resulting in a lower total cost of ownership as compared to the absence of our intervention. More efficient products result in lower energy and maintenance costs for businesses, thereby enabling them re-invest the savings to be more productive and profitable. This also effectively lowers overall energy demand (particularly electricity), leading to lower energy costs for all consumers and creating system-wide benefits that allow New Zealand to defer investment in new expensive generation infrastructure and continue meeting most of its stationary energy needs from renewable and low-emissions energy sources.

*Link to the GSMEE levy*

The Standards and Regulations programme is proposed to be partially funded by the GSMEE levy to support work on Minimum Energy Performance Standards (MEPS) for business products (such as gas water heaters). This would improve gas efficiency and reduce associated emissions, therefore helping to reduce negative externalities caused by GSMEE payers.

*Proposed programmes for 2024/25*

### Standards and Regulations Programme

The Equipment Energy Efficiency (E3) Programme is a joint programme with Australia that develops common regulatory energy efficiency Standards for both residential and business products. New Zealand's participation ensures our regulatory requirements keep pace with global market and technological changes, supporting the Trans-Tasman Mutual Recognition Act (TTMRA). Collaboration with Australia means overheads are shared appropriately, making the programme cost-effective and excellent value for money. EECA's activities include:

- developing and optimising minimum energy performance standards (MEPS) to ensure that New Zealanders have access to the best performing products and poor-performing products are prevented from being sold here
- requiring regulated products for sale in stores to display the correct energy rating label as part of Mandatory Energy Performance Labelling (MEPL), helping consumers to choose energy efficient products
- ensuring regulated products meet MEPS and MEPL requirements by check testing their energy performance.

This work ensures manufacturers and importers raise the efficiency of their products, resulting in efficiency gains and reducing the total cost of operating products in New Zealand. For more information, visit our website: [eeeca.govt.nz/regulations/equipment-energy-efficiency/about-the-e3-programme/](https://eeeca.govt.nz/regulations/equipment-energy-efficiency/about-the-e3-programme/).

Since the New Zealand Energy Efficiency (Energy Using Products) Regulations commenced in 2002, 94 million products have been sold under the programme, resulting in a national benefit of \$2 billion, 81.6 PJ of energy savings, and 3.1 Mt CO<sub>2</sub>e of emissions reductions. The key estimated benefits of this programme in 2024/25 include electricity savings of 434 GWh, carbon emissions reductions of 33,000 tonnes, and a New Zealand benefit of \$37 million.

In 2024/25, we expect to:

- Contribute to the governance of the trans-Tasman E3 Programme, including developing future strategies and priorities. For more information see the [E3 Prioritisation Plan](#).
- Develop technical proposals to update MEPS and MEPL, which may include:
  - MEPS for three-phase electric motors (New Zealand led), air conditioners over 65kW, chillers, commercial ice-makers, external power supplies, and distribution transformers

- MEPS and MEPL for household fridges/freezers, LED lights, and wetgoods (like clothes washers, clothes dryers, and dishwashers), and electronic displays (TVs, computer monitors, digital signage displays)
- Revocation of MEPS for set top boxes and ballasts for fluorescent lamps
- Minor revisions for refrigerated cabinets
- Hot water systems.
- Manage compliance with the Energy Efficiency (Energy Using Products) Regulations 2002 through market surveys, product check testing, and taking enforcement action.
- Assist regulated parties in fulfilling their obligations under the Energy Efficiency (Energy Using Products) Regulation 2002.
- Support MBIE's work on the regulatory amendment project which propose amendments to the Energy Efficiency and Conservation Act 2000 to modernise the regime and ensure it is able to respond emerging challenges and opportunities.

In addition, EECA is also involved in a number of ongoing projects in the demand flexibility space. These projects help provide the framework to deliver smart appliance connectivity and interoperability to New Zealand consumers. In 2024/25, we intend to continue the development/consultation of policy options for electric vehicle chargers and demand flexibility.

### **Productive and low-emissions business programmes**

The business sector represents 45% of New Zealand's total energy use, and this energy use is responsible for over 17% of New Zealand's emissions. When there are coordination, information, or financial barriers, EECA helps to overcome these to accelerate the uptake of energy efficient technologies and renewable energy. This contributes to lowering costs for businesses and creating more efficient, more productive, and lower-emissions New Zealand businesses.

#### *Link to the Electricity levy*

EECA's business programmes help to achieve electricity efficiency, resulting in demand reduction and downward pressure on wholesale prices.<sup>9</sup> Increased electricity efficiency can also result in reduced lines network costs when reducing peak usage, and defer investment in new generation infrastructure, resulting in system-wide benefits for all electricity consumers, including levy payers.<sup>10</sup> Furthermore, the move to renewable forms of energy will inevitably increase the demand for and supply of electricity which will be of benefit to all electricity users as the fixed costs of the electricity system are spread across a larger user base. Increasing electricity efficiency and the use of renewable energy will also lower associated emissions.

#### *Link to the GSMEE levy*

Inefficient gas use by levy payers can cause emissions to be higher than they need to be. EECA's business programmes promote the efficient use of gas through boiler tuning, energy system

<sup>9</sup> Energy Link, *Electricity Price Impact of the EECA Levy-funded Electricity Efficiency Programmes*: Updated 2015, (October 2015).

<sup>10</sup> Concept Consulting Group Limited, *What is the case for electricity efficiency initiatives?* June 2017.

optimisation, and equipment upgrades. As well as increasing efficient gas use, in some situations, there are also economically viable lower-emission alternatives that can avoid the use of gas and its associated emissions. This includes the use of biomass fuels for heating (e.g. wood) where appropriate, and electrically-powered heat pumps to make hot water. Using gas levy funding to facilitate these activities (by providing information and funding feasibility studies) helps mitigate the emissions that gas causes and conserves gas reserves for those activities where there are currently no viable lower-emission alternatives, which should have a downward influence on gas pricing.

*Proposed programmes for 2024/25*

### Large Energy Users Programme

Businesses can improve their energy efficiency and productivity through smarter energy use and investment in energy efficient technologies. However, businesses of all sizes can face challenges to doing so, including information, coordination, and financial barriers. Through the Large Energy Users Programme, EECA works directly with large energy using businesses to help overcome these barriers. The large-scale nature of large energy users' operations offers the most cost-effective gains and provides the greatest benefits to our economy, and their prominence in the business sector also provides leadership to other businesses. It is also the best opportunity to spread best energy management practices across the market.

Through the programme, we help large energy using businesses to prioritise the areas of greatest potential for energy savings and related emission reductions. We facilitate access to tailored advice and services for large energy users across New Zealand to help them identify and invest in long-term solutions to energy and carbon management challenges. This reduces energy-related costs for the business, moves the sector forward on its energy transition journey, and helps build capability in the sector. It also creates public benefits, primarily in the form of reduced carbon emissions.

For more information on the programme, please visit: [eeca.govt.nz/co-funding/energy-and-carbon-reduction](https://eeca.govt.nz/co-funding/energy-and-carbon-reduction).

In 2024/25, we expect to deliver:

- Long-term energy management partnerships with large energy users, with EECA providing direct account management support and co-funding for electricity and gas projects
- Support and funding for energy transition accelerator plans, energy audits, operational efficiency improvements, and energy monitoring and targeting, and feasibility studies
- Training and industry development
- Monitoring of project milestones to ensure that co-funding is only paid out as contracted
- Provision of energy management information, resources and advice
- A targeted approach for small to medium enterprises
- Energy and emissions savings as a result of partnerships with large energy users.



## Technology Demonstration Programme

New and under-utilised energy efficient and low-emissions technologies can carry risk for businesses due to uncertainty about performance and the consequential risk of disruption to production lines, and this can have flow-on impacts on other areas of performance, consumer satisfaction and overall business competitiveness. Our co-investment in the demonstration of innovative technologies helps to overcome these financial and operational barriers.

The Technology Demonstration programme supports the early adoption of technologies by demonstrating commercially available, internationally proven but under-utilised technologies and process improvements, which have significant potential to reduce energy use and emissions and increase energy efficiency in New Zealand. These projects create direct benefits and also help accelerate the diffusion of innovative technologies and processes throughout the economy.

For more information on the programme, visit: [eeca.govt.nz/co-funding/technology-demonstration](https://eeca.govt.nz/co-funding/technology-demonstration).

In 2024/25, we expect to deliver:

- Co-funding specifically targeted to demonstrate technology to displace fossil fuelled process heat such as ultra-high temperature heat pumps and electromagnetic drying systems
- Co-funding to target electrification of off-road diesel using machinery
- Energy and emissions savings as a result of co-funded projects, especially in the agriculture, horticulture and viticulture sectors
- Case studies and information to promote the results of demonstration projects and to encourage uptake within and across sectors.

## Sector Decarbonisation Programme

The Sector Decarbonisation Programme is designed to accelerate decarbonisation by driving change at a sector and sub-sector level. This is a proactive programme that collaborates with industry bodies and associations, aiming to enable a one-to-many diffusion of energy decarbonisation information. The key objective of the programme to address the challenge of how to start and where to start with energy decarbonisation.

The programme engages with sector-specific expertise and communication channels to maximise engagement with representative businesses, introducing them to tangible actions, and continuously developing with the industry as they transform. We have already targeted a number of priority energy-intensive sectors. The initial focus of the programme remains on the decarbonisation of stationary energy (supporting sectors and representative businesses identify a pathway away from coal, natural gas, fuel oil/diesel, and liquefied petroleum gas).

In 2024/25, we expect to:

- Complete further priority sector decarbonisation partnerships and roadmaps.
- Encourage the implementation of sector decarbonisation roadmaps and funnel businesses toward other existing EECA programmes, particular the Government Investment in Decarbonising Industry (GIDI) Fund and Technology Demonstration Fund.

### Industry Development Programme

We develop relationships with and support industry partners and associations that help deliver on New Zealand's energy efficiency, energy conservation, and renewable energy goals. The Industry Development Programme is designed to build capability and capacity within the energy sector to meet the demand for expertise. We fund the development of technical information, guidance, specifications; the development and delivery of training courses, webinars, seminars, conferences; and the maintenance of energy and carbon management accreditation framework. Our engagements and industry collaborations extend across partners working with all fuel types.

In 2024/25, we expect to deliver:

- Continued support to industry partners and associations such as Carbon and Energy Professionals, Bioenergy Association and Energy Academy
- Targeted training webinars and conferences
- Growth of partner member bases and more sustainable sector organisations.

### National Australian Built Environment Rating System New Zealand (NABERSNZ)

EECA delivers ongoing improvements in the energy performance of commercial buildings (and more recently hospitals) by providing access to and implementing the NABERSNZ scheme – a system for rating the energy efficiency of existing and new office buildings and identifying opportunities for implementing building energy performance improvements. Assessing and improving the energy performance of buildings can improve their value and desirability for both investors and prospective tenants and reduce energy costs and associated emissions.

In 2024/25, we expect to deliver:

- An increase in the number of existing commercial offices and Public Hospitals that have NABERSNZ ratings
- Electricity, cost, and emissions savings through resulting building energy performance improvements.

## Government leadership programmes

While its footprint is comparatively small, government has a key leadership role to play in the transition to an energy efficient and low-emissions future.

### *Link to the Electricity levy*

EECA's government leadership programmes help to achieve electricity efficiency, resulting in demand reduction and downward pressure on wholesale prices.<sup>11</sup> Increased electricity efficiency can also result in reduced lines network costs when reducing peak usage, and defer investment in new generation infrastructure, resulting in system-wide benefits for all electricity consumers, including levy payers.<sup>12</sup>

### *Link to the GSMEET levy*

Inefficient gas use by levy payers can cause emissions to be higher than they need to be. EECA's government leadership programmes promote the efficient use of gas through boiler tuning, energy system optimisation and equipment upgrades. They will contribute towards lowering costs and creating efficient, more productive and lower-carbon local authorities.

As well as increasing efficient gas use, in some situations, there are also economically viable lower-emission alternatives that can avoid the use of gas and its associated emissions. This includes the use of biomass fuels for heating (e.g. wood) where appropriate, and electrically-powered heat pumps to make hot water and heat swimming pools. Using gas levy funding to facilitate these activities by providing information and funding feasibility studies, helps mitigate the emissions that gas causes, and conserves gas reserves for those activities where there are no viable lower-emission alternatives.

### *Proposed programmes for 2024/25*

#### Local Authorities Programme

We facilitate access to tailored advice and services and provide co-funding for local government authorities (i.e. regional, city and district councils) across New Zealand to help them identify and implement opportunities to reduce energy use and related emissions. This reduces energy-related costs for the organisation, moves the sector forward on the energy transition journey and helps build capability in the sector. It also creates public benefits, primarily in the form of reduced energy use and carbon emissions.

For more information, please visit: [eeeca.govt.nz/co-funding/energy-and-carbon-reduction](https://eeeca.govt.nz/co-funding/energy-and-carbon-reduction).

In 2024/25, we expect to:

- Provide advice and co-fund energy audits, energy graduates, energy management plans, energy systems optimisation, feasibility studies and business cases, and monitoring and targeting for local authorities.

<sup>11</sup> Energy Link, *Electricity Price Impact of the EECA Levy-funded Electricity Efficiency Programmes*: Updated 2015, (October 2015).

<sup>12</sup> Concept Consulting Group Ltd, *What is the case for electricity efficiency initiatives?* June 2017.

# 3 Appendices



---

Appendices 1-5 follow over the page.

Appendix 1: Proposed levy-related work programme and budget for 2024/25 (current consultation)

EECA levy-related programme	Forecast for 2024/25			Total programme cost
	Cost of activities related to the PEFM levy	Cost of activities related to the Electricity and GSMEE levies	Cost of activities not related to the energy levies (i.e. EECA only, includes coal and diesel)	
<b>Productive and low-emissions business</b>				
Standards and Regulations (Business)	-	2,220,384	-	<b>2,220,384</b>
Large Energy Users	-	628,791	628,790	<b>1,257,582</b>
Technology Demonstration	-	1,753,791	-	<b>1,753,791</b>
Sector Decarbonisation	-	1,169,098	292,275	<b>1,461,373</b>
Industry Development	-	256,137	597,654	<b>853,791</b>
NABERSNZ	-	254,758	63,690	<b>318,448</b>
<b>Efficient and low-emissions transport</b>				
Low Emission Transport Fund	25,887,609	-	-	<b>25,887,609</b>
Low Emissions Transport Information Provision	1,731,588	-	-	<b>1,731,588</b>
<b>Energy efficient homes</b>				
Standards and Regulations (Residential)	-	2,220,384	-	<b>2,220,384</b>
<b>Government leadership</b>				
Local Authorities	-	560,075	62,231	<b>622,306</b>
<b>Subtotal</b>	<b>27,619,197</b>	<b>9,063,420</b>	<b>1,644,639</b>	<b>38,327,256</b>
<b>Total forecast cost for 2024/25</b>	<b>36,682,617</b>		<b>1,644,639</b>	<b>38,327,256</b>

<b>Levy funding request</b>	
<b>Forecast cost of EECA's levy-related activities in 2024/25</b>	<b>36,682,617</b>
<b>Amount proposed to be recovered from the levies in 2024/25</b>	<b>20,300,000</b>
Proposed PEFM levy funding	13,500,000
Proposed Electricity levy funding	5,100,000
Proposed GSMEE levy funding	1,700,000
<b>Balance proposed to be covered by EECA in 2024/25</b>	<b>16,382,617</b>

## Appendix 2: Consulted levy-related 2023/24 work programme and budget (November 2022)

EECA levy-related programme	Forecast for 2023/24			Total programme cost
	Cost of activities related to the PEFM levy	Cost of activities related to the Electricity and GSMEE levies	Cost of activities not related to the energy levies (i.e. EECA only, includes coal and diesel)	
<b>Productive and low-emissions business</b>				
Standards and Regulations (Business)	-	2,573,140	-	<b>2,573,140</b>
Large Energy Users	-	728,305	728,305	<b>1,456,610</b>
Technology Demonstration	-	2,370,865	-	<b>2,370,865</b>
Sector Decarbonisation	-	1,035,453	258,863	<b>1,294,316</b>
Industry Development	-	291,371	679,866	<b>971,237</b>
NABERSNZ	-	227,039	56,760	<b>283,799</b>
<b>Efficient and low-emissions transport</b>				
Low Emission Transport Fund	26,054,041	-	-	<b>26,054,041</b>
Low Emissions Transport Information Provision	2,556,441	-	-	<b>2,556,441</b>
<b>Energy efficient homes</b>				
Standards and Regulations (Residential)	-	2,573,140	-	<b>2,573,140</b>
<b>Government leadership</b>				
Local Authorities	-	558,215	62,024	<b>620,239</b>
<b>Subtotal</b>	<b>28,610,482</b>	<b>10,357,527</b>	<b>1,785,818</b>	<b>40,753,827</b>
<b>Total forecast cost for 2023/24</b>	<b>38,968,009</b>		<b>1,785,818</b>	<b>40,753,827</b>

Levy funding request	
<b>Forecast cost of EECA's levy-related activities in 2023/24</b>	<b>38,968,009</b>
<b>Amount proposed to be recovered from the levies in 2023/24</b>	<b>20,300,000</b>
Proposed PEFM levy funding	13,500,000
Proposed Electricity levy funding	5,100,000
Proposed GSMEE levy funding	1,700,000
<b>Balance proposed to be covered by EECA in 2023/24</b>	<b>18,668,009</b>

## Appendix 3: Notes on our financial projections

The tables in Appendices 1 and 2 (above) outline the financial projections for our 2024/25 and 2023/24 work programmes. When reviewing them, it is important to understand that:

- The expenses incurred by EECA in any given year are a mix of the operating costs of our activities and our co-investment with partners in pursuit of government objectives.
- EECA enters into agreements with partners that frequently span multiple financial years.

Commitments delivered on and expended in the current financial year are shown as expenses in the Statement of Comprehensive Revenue and Expenses for the year. Outstanding co-investment commitments are shown as committed funds in retained earnings in EECA's Statement of Financial Position (see our 2022/23 Annual Report<sup>13</sup>).

The financial tables in Appendices 1 and 2 account for the commitments brought forward for programmes that include co-investment in multi-year projects and the expected funding to be expended in future financial years.

### Cost allocation

Direct costs are those costs directly attributable to specific programme activity, and include items such as:

- The co-funding provided by EECA.
- The directly attributable marketing costs of the programme activity.
- Outsourced services to help deliver the programme.
- The personnel costs associated with delivery of the programme.

Indirect costs are costs which cannot be attributable to a specific programme and are distributed across the entire portfolio. Indirect costs are allocated to projects using cost drivers that are appropriate to the costs being allocated. Indirect costs include human resources, finance, information communication technology and property costs. These are predominantly a function of the number of people employed, and consequently, are attributed in proportion to the staff allocated to each programme. Indirect costs comprise approximately one third of the fully allocated cost of each programme.

### Calculation of total levy costs expended in the year

Once the fully allocated work programme has been determined, the levy-related percentages are applied to each levy-funded programme, giving the total proposed levy funding.

<sup>13</sup> [www.eeca.govt.nz/about/news-and-corporate/corporate-documents/](http://www.eeca.govt.nz/about/news-and-corporate/corporate-documents/)

## Appendix 4: Legal context for this consultation

### Electricity Industry Act 2010

#### *129A Energy Efficiency and Conservation Authority consultation about request for appropriation*

(1) The EECA must, before submitting a request to the Minister seeking an appropriation of public money for the following year, or any change to an appropriation for the current year, that relates to costs that are intended to be recovered by way of levies under section 128(3)(c), consult about that request with:

- (a) those industry participants who are liable to pay a levy under that section; *and*
- (b) any other representatives of persons whom the EECA believes to be significantly affected by a levy.

(2) The EECA must, at the time when the request is submitted, report to the Minister on the outcome of that consultation.

(3) This section applies to requests in respect of the financial year beginning 1 July 2018 and later financial years.

### Energy (Fuels, Levies, and References) Act 1989

The Energy Innovation (Electric Vehicles and Other Matters) Amendment Act 2017 inserts section 14A into the Energy (Fuels, Levies, and References) Act 1989, which requires EECA to consult with those industry participants who are liable to pay a levy and any other representatives of persons whom EECA believes to be significantly affected by a levy:


#### *14A Energy Efficiency and Conservation Authority consultation about request for appropriation*

(1) The EECA must, before submitting a request to the Minister seeking an appropriation of public money for the following year, or any change to an appropriation for the current year, that relates to costs that are intended to be recovered by way of a levy under section 23 or 24, consult about that request with:

- (a) those persons who are liable to pay the levy; and
- (b) any other representatives of persons whom the EECA believes to be significantly affected by the levy.

(2) The EECA must, at the time when the request is submitted, report to the Minister on the outcome of that consultation.





# Appendix 5: Report on EECA's levy-funded activities in 2022/23

For the year ended  
30 June 2023

EECA

TE TARI TIAKI PŪNGAO  
ENERGY EFFICIENCY & CONSERVATION AUTHORITY



# Contents

<b>Context.....</b>	<b>27</b>
Introducing EECA.....	27
EECA received \$17.3 million of levy funding in 2022/23 .....	27
<b>Delivered benefits .....</b>	<b>28</b>
Benefits from programmes part-funded by the PEFM levy in 2022/23 .....	28
Summary of PEFM levy funding use and delivered benefits in 2022/23.....	30
Benefits of programmes part-funded by the Electricity and GSMEE Levies in 2022/23.....	31
Summary of Electricity levy and GSMEE levy funding use and delivered benefits in 2022/23.....	35
Glossary of units.....	36

# 1 Context



## About EECA

EECA is a Crown agency established under the Energy Efficiency and Conservation Act 2000 to encourage, promote, and support energy efficiency, energy conservation, and the use of renewable sources of energy. Our mission is to mobilise New Zealanders to be world leaders in clean and clever energy use (see pages 4-9 of this document for more information about EECA).

## EECA was appropriated and spent \$17.3 million of levy funding in 2022/23

EECA is funded by the Crown through appropriations of public money. The Crown recovers a portion of this funding through three energy levies:

1. Petroleum or Engine Fuel Monitoring (PEFM) levy
2. Electricity Industry (Electricity) levy
3. Gas Safety, Monitoring and Energy Efficiency (GSMEE) levy.

Under the Energy Innovation (Electric Vehicles and Other Matters) Amendment Act 2017, EECA can use funding from these levies to fulfil our statutory function.

In November 2021, [EECA consulted](#) with stakeholders and the public, asking for their views about the use of \$17.3 million from the three energy levies for our proposed 2022/23 programme of work. EECA received five submissions, all of which were partially or fully supportive. Following consultation, the Minister of Energy and Resources allocated the requested \$17.3 million in levy funding to EECA for 2022/23 in the following proportions:

- \$10.5 million from the Petroleum or Engine Fuels Monitoring (PEFM) levy
- \$5.3 million from the Electricity Industry (Electricity) levy
- \$1.5 million from the Gas Safety, Monitoring and Energy Efficiency (GSMEE) levy.

EECA spent a total of \$28.9 million during 2022/23 on activities related to the three energy levies (\$17.3 million of which was sourced from the levies). This report describes EECA's levy-funded programmes in 2022/23, including the actual cost and some of the benefits these programmes delivered. For further information on EECA's activities during the year and the delivered benefits, please refer to EECA's Annual Report 2022/23.<sup>14</sup>

<sup>14</sup> [www.eeca.govt.nz/about/news-and-corporate/corporate-documents/](http://www.eeca.govt.nz/about/news-and-corporate/corporate-documents/)

# 2 Delivered benefits



## Benefits from programmes part-funded by the PEFM levy in 2022/23

EECA wants New Zealanders to have their transport needs met using significantly less, and cleaner energy. In 2022/23, funding from the PEFM levy was used to deliver two key EECA programmes.

### Low Emission Transport Fund (LETF)

Our partially levy-funded Low Emission Transport Fund (previously the Low Emission Vehicles Contestable Fund) supports the demonstration and uptake of low-emissions transport options to support the energy efficiency and decarbonisation of the New Zealand transport sector.

In 2022/23, we delivered six contestable funding rounds, committing \$17.6 million of government co-funding to 45 projects matched by \$35.85 million of applicant funding. The fund broadened in scope to include innovative projects in the marine and off-road sectors. We also saw multi-year projects meet delivery milestones sufficient to draw on \$9 million in co-investment.

Projects supported in 2022/23 will deliver more public electric vehicle charging infrastructure and low-emissions vehicles and technologies. We co-funded another 60 public charging stations this year, which will help to fill New Zealand's State highway public charging gaps. To date, the Fund has now supported 839 public charging stations across New Zealand. We also committed funding to several types of technology and innovation projects, including marine and offroad projects for the first time in the Fund's history. These projects included an electric motor outboard, an electric hydrofoil ferry, and an electric dump truck. A full list of projects funded to date is available on our website: [eeeca.govt.nz/co-funding/transport-emission-reduction/co-funded-transport-projects/](https://eeeca.govt.nz/co-funding/transport-emission-reduction/co-funded-transport-projects/).

### Low Emissions Transport Information Provision

We aim to help New Zealanders understand the impact of their transport choices and encourage them to choose low-emissions transport options over fossil fuelled vehicles more frequently. In 2022/23, we continued to develop and provide independent and authoritative information that motivated people to improve their transport choices.

Key outputs from the campaign include:

- Extended research on motivations, barriers, and attitudes towards the uptake of low-emissions transport and charging technology, sharing the reports cross-government and on our website
- Survey results showing the percentage of people who would consider going electric for their next vehicle purchase reached an all-time high of 50%
- Publishing and sharing of reports and authoritative information
- An electric vehicle (EV) advertising campaign via digital channels to overcome barriers and emphasise motivations to purchase
- A campaign and activity to connect the idea of transport choices and carbon emissions and encourage ongoing low-emissions transport behaviour
- Promotion of website information and digital tools to encourage EV uptake and enable informed decisions
- Sponsorship of EV rally driver Hayden Paddon to promote EVs and overcome barriers
- Engaging cross-government on marketing activity with shared relevance
- Provision and monitoring of the Vehicle Emissions and Energy Economy Labelling Programme, enabling motorists, car dealers and industry players to make informed decisions.

Summary of PEFM levy funding use and delivered benefits in 2022/23

Levy-funded programme	Forecast cost for 2022/23 (consulted proposal)			Actual cost for 2022/23			Outputs from PEFM levy-funded projects and initiatives in 2022/23
	Forecast cost of programme (\$)	Forecast cost of programme activities related to PEFM levy (\$)	Proposed funding to be recovered from PEFM levy (\$)	Actual cost of programme (\$)	Actual cost of programme activities related to PEFM (\$)	Actual spend from PEFM levy funding (\$)	Delivered outputs
Low Emission Transport Fund	19,684,686	19,684,686		19,277,203	19,277,203		<ul style="list-style-type: none"> <li>\$17.6 million of government co-funding committed to 45 projects</li> <li>\$9.0 million in co-investment paid out to multi-year projects as delivery milestones were met</li> <li>60 further public charging stations funded</li> </ul>
			10,500,000			10,500,000	
Low Emissions Transport Information Provision	1,641,257	1,641,257		2,282,132	2,282,132		<ul style="list-style-type: none"> <li>Between 45 and 50% of people say they are likely to consider an electric vehicle as their next car purchase</li> <li>35% of businesses are actively seeking to reduce the impact of their energy use and transport choices</li> <li>41% of individuals understand that transport is the biggest contributor to New Zealand's energy-related emissions</li> </ul>
<b>Total</b>	<b>21,325,943</b>	<b>21,325,943</b>	<b>10,500,000</b>	<b>21,559,335</b>	<b>21,559,335</b>	<b>10,500,000</b>	

Note: The figures above include overhead costs.

## Benefits of programmes part-funded by the Electricity and GSMEE Levies in 2022/23

In 2022/23, funding from the Electricity levy and GSMEE levy was used to deliver seven EECA programmes outlined in this section. These programmes have been assessed as having a high impact across the market in terms of supporting the uptake of new emerging technologies, energy efficiency, promoting the use of renewables, and addressing and planning for emissions reductions.

### Commercial and residential standards and regulations programmes

#### Standards and Regulations Programme

EECA participates in a joint programme with Australian Government, states, and territories under the Equipment Energy Efficiency (E3) Programme. The programme works to make residential, commercial, and industrial products more energy efficient, through the development and implementation of Minimum Energy Performance Standards (MEPS) and Mandatory Energy Performance Labelling (MEPL). This involves developing standards, developing regulations, checking for compliance, enforcement activities, partner engagement, and providing information to consumers. EECA's activity in this area also includes developing Publicly Available Specifications (PAS) that provide best practice guidance for technologies.

In 2022/23, EECA continued to develop new MEPS for products and appliances, administer the regulatory requirements for products that are sold in New Zealand, and monitor compliance against those standards (including inspecting 24,777 products for MEPL requirements and check testing 36 products for MEPS requirements). By not allowing inefficient appliances to be sold in New Zealand, and by requiring energy performance labels on common consumer appliances, EECA helped consumers make choices that reduced ongoing electricity bills. We also revised and published PAS for commercial and residential electric vehicle charging and worked on developing regulations for several products including household refrigerating appliances, air conditioners above 65kW, and three-phase electric motors. Further, we consulted on proposals for electronic displays (televisions, computer monitors, and digital signage displays) and commercial ice makers.

Overall, the E3 programme in New Zealand reported 1.76 PJ of energy saved in 2022/23 (relating to the latest sales data period of 1 April 2021 through 30 March 2022) equating to reducing emissions by 53,600 tonnes and \$42.9 million in national benefit. Since the programme began in 2002, 94 million products have been sold under the programme in New Zealand, resulting in a national benefit of \$2 billion, 81.6 PJ of energy savings, and 3.1 Mt CO<sub>2</sub>e of emissions reductions.

## Productive and low-emissions business programmes

### Large Energy Users Programme

Businesses can improve their energy efficiency and productivity through smarter energy use and investment in energy efficient technologies. However, businesses of all sizes can face challenges to doing so, including information, coordination, and financial barriers. Through the Large Energy Users Programme, EECA works directly with large energy using businesses to help overcome these barriers and prioritise the areas of greatest potential for energy savings and related emission reductions.

In 2022/23, EECA continued to manage its long-term partnerships with businesses that use over a quarter of the energy used in New Zealand. We provided these businesses with direct account management and/or co-funding to support energy efficiency and various types of decarbonisation projects.

One of EECA's key products for gaining commitment to energy efficiency and decarbonisation is the Energy Transition Accelerator (ETA) programme. Through this product, EECA provides expert assistance to help each business onto a customised long-term pathway to decarbonisation by identifying technically and economically viable low-emissions investments. In 2022/23, we completed ETA opportunities assessments for 11 businesses to identify technically and economically viable options for emissions reductions. We also signed new ETA collaboration agreements with two businesses, starting their ETA journeys.

Beyond the ETA programme, we also continued to see tangible results from an increased focus on helping the business to not only become more energy efficient, but to also switch to cleaner forms of energy and reduce emissions. In 2022/23 we committed \$1.53 million of co-funding to 40 projects, including feasibility studies, energy audits, monitoring and targeting, and an energy graduate.

Other workstreams we used to target business decarbonisation in 2022/23 include a newly created, targeted approach for small to medium enterprises. We also provided businesses of all sizes with energy management information, resources, advice, and training. Further details of our business co-funding and support programmes can be found on our website: [eeeca.govt.nz/co-funding](https://eeeca.govt.nz/co-funding).



### Technology Demonstration Programme

EECA continued to help businesses demonstrate internationally proven yet under-utilised energy-saving technologies and process improvement opportunities through our Technology Demonstration Programme. By co-funding these technologies, we support and promote early adopters, which also provides benefits to wider sectors who can replicate the technology at lower risk.

In 2022/23, we committed \$1.047 million of co-funding to 15 technology demonstration projects, including:

- The Leaderbrand Electric Harvest Trailers project, which displace existing trailers towed by diesel tractors with two battery electric, self-propelled trailers. This project is highly replicable across other indoor cropping sites.
- The Wardle Frost Fans project, which provides fans to combat spring frost damage to walnut crops. This technology will be highly replicable across the horticultural sector.
- The Electric Induction Wok, which eliminates the need for gas cooking within commercial kitchens. This has potential for use across thousands of New Zealand restaurants, cafés, and takeaway kitchens currently using gas/LPG woks.

### Sector Decarbonisation Programme

The Sector Decarbonisation Programme collaborates with industry bodies and associations, aiming to enable a one-to-many diffusion of energy decarbonisation information. The key objective of the programme is to address the challenge of how to start and where to start with energy decarbonisation.

EECA takes an energy efficiency first approach — that is, helping businesses understand how to use their existing equipment and processes as efficiently as possible to reduce overall energy use. We work with sector associations to create resources which provide businesses with best-practice guidance for their decarbonisation journey.

In 2022/23, we published decarbonisation pathway resources for six key sectors: covered cropping, brewing, coffee roasting, commercial office buildings, aged care/retirement villages, and expanded polystyrene. We ran over 30 workshops/conferences to share insights gathered through the programme, and over 450 businesses signed up to engage with our resources and associated learnings, which can be shared across multiple businesses.

### Industry Development Programme

We develop relationships with and support industry partners and associations that help deliver on New Zealand's energy efficiency, energy conservation, and renewable energy goals. The Industry Development Programme is designed to build capability and capacity within the energy sector to meet the demand for expertise.

In 2022/23, we developed and supported our existing industry partners and associations whilst expanding to new partnerships. We are committed to growing the capability and competency right across the energy sector, helping to meet both the current demand and shore up the future skills shortage.

We continued our ongoing support for the Carbon and Energy Professionals (CEP), the Bioenergy Association of New Zealand (BANZ), Drive Electric and the Energy Academy. Through these funded partnerships, these associations are able to grow their membership bases, deliver targeted training courses, provide collaboration platforms and run educational webinars.

### National Australian Built Environment Rating System New Zealand (NABERSNZ)

We delivered ongoing improvements in the energy performance of commercial buildings by continuing to back the NABERSNZ scheme – a system for rating the energy efficiency of existing and new office buildings and identifying opportunities for implementing building energy performance improvements. Assessing and improving the energy performance of commercial office buildings can improve their value and desirability for both investors and prospective tenants and reduce energy costs and associated emissions.

NABERSNZ had another year of significant growth in 2022/23, with a total of 132 office buildings receiving certified ratings. The average star rating was 4.26 out of 6 stars.

## Government leadership programmes

### Local Authorities Programme

We facilitate access to tailored advice and services and provide co-funding for local government authorities (i.e. regional, city and district councils) across New Zealand to help them identify and implement opportunities to reduce energy use and related emissions.

In 2022/23, we continued to deliver advice and co-fund energy audits, energy graduates, energy management plans, energy systems optimisation, feasibility studies and business cases, and monitoring and targeting to local authorities (i.e. regional, city and district councils).

## Summary of Electricity levy and GSMEE levy funding use and delivered benefits in 2022/23

Levy-funded programme	Forecast cost for 2022/23 (consulted proposal)			Actual cost for 2022/23			Savings across the programme from projects completed in 2022/23	
	Forecast cost of levy-related programme (\$)	Forecast cost of programme activities related to electricity and gas levies (\$)	Proposed funding to be recovered from electricity and gas levies (\$)	Actual cost of levy-related programme (\$)	Actual cost of programme activities related to electricity and gas levies (\$)	Actual spend from electricity and gas levy funding (\$)	Energy savings (PJ)	Emissions reductions (tCO <sub>2</sub> e)
Standards and Regulations (Business)	1,804,915	1,804,915	6,800,000	1,886,118	1,886,118	6,800,000	0.82	25,100
Standards and Regulations (Residential)	1,804,915	1,804,915		1,886,118	1,886,118		0.93	28,400
Large Energy Users	5,384,611	2,692,306		2,297,190	950,689		0.09	5,204
Technology Demonstration	2,686,809	2,686,809		1,048,023	1,048,022		0.01	32
Sector Decarbonisation	2,099,779	1,679,823		1,101,828	881,462		N/A	N/A
Industry Development	596,170	178,851		789,480	236,844		N/A	N/A
NABERSNZ	337,450	269,960		271,228	216,982		N/A	N/A
Local Authorities	630,488	567,439		288,315	259,484		0.01	320
<b>Total</b>	<b>15,345,137</b>	<b>11,685,018</b>		<b>6,800,000</b>	<b>9,568,300</b>		<b>7,365,719</b>	<b>6,800,000</b>
GSMEE funding			1,300,000			1,300,000		
Electricity funding			5,500,000			5,500,000		

Note: The figures above include overhead costs.

## Glossary of units

**Table One – Energy use measurement units and context of scale**

Unit	Definition	Example
<b>PJ</b>	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 <sup>15</sup> ).	New Zealand households use a total of 83.39 PJ of energy per year. Split by fuel type: <ul style="list-style-type: none"> <li>› 47.54 PJ – electricity</li> <li>› 8.14 PJ – renewables</li> <li>› 7.19 PJ – natural gas</li> <li>› 20.27 PJ – oil (e.g. petrol and diesel)</li> <li>› 0.24 PJ – coal</li> </ul>
<b>GWh</b>	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 around 4,500 GWh of electricity and New Zealand households use 23,163 GWh of energy (from all fuel types).
<b>kWh</b>	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 11,855 kWh of energy per year.

**Table Two – Emissions measurement units and context of scale**

Unit	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
<b>ktCO<sub>2</sub>e</b>	Kilotonnes of carbon equivalent emissions - a unit used to indicate the global warming potential of greenhouse gases, using carbon dioxide (CO <sub>2</sub> ) as a reference gas. One kilotonne of CO <sub>2</sub> e is equivalent to 1000 tonnes of CO <sub>2</sub> e.	0.0015 ktCO <sub>2</sub> e	0.0017 ktCO <sub>2</sub> e	5,270 ktCO <sub>2</sub> e
<b>tCO<sub>2</sub>e</b>	Tonnes of carbon equivalent emissions - a unit used to indicate the global warming potential of greenhouse gases, using carbon dioxide (CO <sub>2</sub> ) as a reference gas. One tonne of CO <sub>2</sub> e is equivalent to 1000 kilograms of CO <sub>2</sub> e.	1.51 tCO <sub>2</sub> e	1.72 tCO <sub>2</sub> e	5,270,236 tCO <sub>2</sub> e
<b>kgCO<sub>2</sub>e</b>	Kilograms of carbon equivalent emissions - a unit used to indicate the global warming potential of greenhouse gases, using carbon dioxide (CO <sub>2</sub> ) as a reference gas. One kilogram of CO <sub>2</sub> e is equivalent to 1000 grams of CO <sub>2</sub> e (gCO <sub>2</sub> e).	1,506 kgCO <sub>2</sub>	2,426 kgCO <sub>2</sub> e	5,270,235,734 kgCO <sub>2</sub> e

<sup>15</sup> Data sources: Household Estimates by Tenure, Tatauranga Aotearoa Statistics New Zealand (2023); Energy Balance Tables, Hikina Whakatutuki Ministry of Business, Innovation and Employment (2022); Measuring Emissions - A Guide for Organisations, Manatū Mō Te Taiao Ministry for the Environment (2023); internal vehicle fuel consumption data, Te Manatū Waka Ministry of Transport (2022); and Future State Model VKT/vehicle numbers data, Te Manatū Waka Ministry of Transport (2022).