

# Annual Report



Energy Efficiency and Conservation Authority Te Tari Tiaki Pūngao

2013/14

We are working to make New Zealand a better place to live – economically, environmentally and socially – through the better use of energy.

# Highlights 2013/14

## **6** bup-wide ener

management agreements were signed in 2013/14. These will lead to combined annual energy savings of

## \$2.8 million











## **38%** average market share for Energy Star<sup>®</sup> products in 2013/14

# 790,000m<sup>2</sup>

of commercial floor space in Christchurch has been reviewed through EECA. If implemented, this design advice will result in

## \$6.8 million



of the top 30 light vehicle distributors are now using the Vehicle Fuel Economy

# 150

entries were received for the biennial EECA Awards in May. This was a record and reflects the level of uptake and innovation happening in energy efficiency and renewable energy projects



lightbulbs sold at supermarkets in 2013/14 were energy efficient



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# Part A

# EECA

# From the Chair

The past 12 months have been a period of very substantial change for EECA, and perhaps what has struck me most this year is the realisation that the two key core competencies of this organisation are, and must always be, responsiveness and resilience.

As an organisation we are accountable for identifying emerging opportunities for energy efficiency, both in terms of the science and of their economic viability. We then respond to those opportunities by developing new programmes, by matching our organisation structure to implement those effectively and by ensuring we have the right mix of skills and expertise in the organisation to deliver. The importance of resilience comes from that continual need for organisational renewal, and from our determination that we must never lose momentum through periods of transition.

As the Board reflects on the substantial revision of programmes, structure and staff that EECA has undergone this year we have been impressed that the organisation continued to deliver on its objectives through all of that. On behalf of the Board I want to record our appreciation of the level of commitment and resilience demonstrated by all EECA staff through a challenging year.

All of the changes initiated were as a consequence of a rigorous examination of the energy landscape, and the new opportunities that work revealed. Principally that the transport sector and the industrial heat sector hold the greatest potential for energy efficiency, renewable energy and carbon dioxide emission reduction, that some of our largest energy-using companies still have significant value-adding opportunities to capture energy savings and benefits, and that changing the behaviour of businesses and households, even in small ways, still offers the cumulative potential for major energy and emissions savings. Of course it is essential for EECA to continue to be able to demonstrate that any public money spent to achieve those savings represents sound business investments with superior returns.

New programmes have been initiated to respond to those issues, while ensuring our existing programmes continue to be delivered efficiently.

We are also looking at how those programmes can be delivered more cost effectively. For example, in the business sector there will be a greater focus on providing specialist advice and influencing through partnerships, targeting the top 200 energy-using businesses where the greatest value can be generated and working with industry experts and networks.

This builds on the significant value for money we already derive from working through partners. In 2013/14 Warm Up New Zealand was supported by \$28 million in third party funding. The Board expects that EECA will continue to explore the potential to make greater use of partnerships to leverage value-adding benefits for both those partners and for New Zealand.

The Board is confident that the changes put in place this year have positioned EECA well to meet the opportunities we recognise today. As new challenges and opportunities continue to emerge, EECA will address those with the same responsiveness and resilience as it has demonstrated this year.

Energy is the lifeblood of any economy, and EECA will demonstrate its increasing relevance and the value it generates for New Zealand as we go forward.

I would like to take this opportunity to record my thanks to the Chief Executive and his team for their commitment during the year, and to retiring Board members Terence Curry, Liz Tanielu and Mark Oldfield for the contribution they have made to the EECA Board.

LCCD.

Tom Campbell CHAIR

# **The Board**



**Tom Campbell** CHAIR Appointed February 2013



David Coull Appointed February 2014



Mark Oldfield Appointed December 2010 Retired July 2014



Marion Cowden DEPUTY CHAIR Appointed December 2010



**Terrence Currie** Appointed December 2010 Retired December 2013



Liz Tanielu Appointed August 2011 Retired August 2014



Janet Carson Appointed August 2011



Mervyn English Appointed December 2010



Elena Trout Appointed February 2013

# From the Chief Executive

This year has been one of change at EECA, after we undertook a formal review to ensure that EECA has a clear strategic direction and that our structure and processes support our priorities and our value for money commitments. Getting this alignment led to a comprehensive restructure.

Although EECA is now smaller, the restructure included the creation of two new General Manager roles – for Transport, and Strategic and Delivery Services – and a number of opportunities for internal promotion, utilising the depth and calibre of EECA's staff. I would like to acknowledge the dedication of all staff during this time and thank those who left for their contribution.

The fact EECA was able to deliver on most of our targets for 2013/14 in the face of uncertainty and change is testament to the commitment of the EECA team.

In 2013/14 EECA supported the insulation of 35,000 homes, of which 20,000 were low-income households – this takes the total number of homes insulated through EECA's two Warm Up New Zealand programmes to 260,000. Also in the residential sector, our ENERGYWISE™ information programme continues to provide New Zealanders with the advice they need to save money on energy bills, while enjoying the other benefits of energy efficiency such as warmer, drier, healthier homes, and safer driving.

In the business sector, EECA's programmes led to businesses adopting energy management practices and energy saving technologies resulting in savings of at least \$8 million per year. EECA also rolled out the NABERSNZ<sup>™</sup> energy rating system for commercial buildings and secured long-term partnerships with six large companies, including Talley's and AFFCO, for 'group wide' energy management agreements. Results of a pilot programme for large energy users carried out this year will help shape the future direction of EECA's business offering.

Our work in Christchurch has continued in 2013/14, influencing commercial building energy use through design advice and supporting the proposal for a district energy scheme. EECA will continue to look for opportunities to help Christchurch become a sustainable and energy efficient city. In the transport sector, the Vehicle Fuel Economy Label results show that, when armed with good information, consumers will make better buying decisions. I am particularly pleased that the Vehicle Fuel Economy Promotional Badge is becoming an established promotional tool with seven of the top 30 light vehicle brand distributors now using the badge in their own advertising.

EECA's heavy vehicle fuel efficiency programme continues to grow. We are working alongside industry to build the sector's capability in fuel efficiency, and we have now reviewed 14% of heavy vehicle fleets.

In May we again hosted the EECA Awards which attracted a record number of entries. The biennial awards celebrate excellence and innovation in energy efficiency and renewable energy. The Supreme Award winner, K&L Nurseries, showed that innovative use of renewable energy can be effective no matter how small (or big) your business is.

2013/14 also saw approval for EECA to take on four carbon reduction projects: an information campaign for fuel efficient tyres; an expanded fuel efficiency programme for heavy vehicle fleets; increased energy efficiency of meat and dairy heat plant; and a wood energy hub in Southland. These projects increase energy efficiency and use of renewable energy but are specifically funded for their potential to reduce New Zealand's carbon dioxide emissions.

I am looking forward to the coming year. With the new structure in place we can make the most of our new direction and purpose, and set about delivering results that make a real difference to New Zealand.

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Mike Underhill CHIEF EXECUTIVE

# The 2013/14 Management Team



Mike Underhill Chief Executive



Pat Murray General Manager Marketing and Communications



Greg Visser General Manager Business



lan Horne General Manager Corporate



Terry Collins General Manager Products



Elizabeth Yeaman General Manager Transport



Ian Niven General Manager Strategic and Delivery Services



Robert Linterman General Manager Residential

# EECA's Role and Governance

The Energy Efficiency and Conservation Authority (EECA) implements the Government's priorities in the areas of energy efficiency, energy conservation and renewable energy.

New Zealand spends approximately \$18 billion on energy each year. We estimate that annual savings of around \$2.4 billion could be realised from targeted energy efficiency programmes.

EECA's work seeks to free this resource and re-deploy it into the economy for the national benefit. EECA uses tools such as information, regulation, funding and partnerships to improve the use of energy. Our work is particularly relevant in helping New Zealand move towards a lower emissions economy, and in helping householders and businesses save money.

#### Governance

EECA is a Crown entity, established under the Energy Efficiency and Conservation Act 2000 and has responsibilities under the Crown Entities Act 2004.

EECA is governed by a Board of up to eight members with experience in energy, commerce, local government and the public sector. The Board reports to the Minister of Energy and Resources and its members are appointed by the Minister. Members usually hold office for a term of three years and may be reappointed. The Board meets on a monthly basis and has established two committees: Risk and Audit; and Remuneration.

The Board provides the leadership and policy to govern health and safety. This is a fundamental part of EECA's overall risk management function. An independent review of EECA's health and safety policies and practices was completed in late 2013 concluding there are good processes in place.

18 billion each year on energy \$2.4 billion could be realised through targeted energy efficiency programmes for national benefit

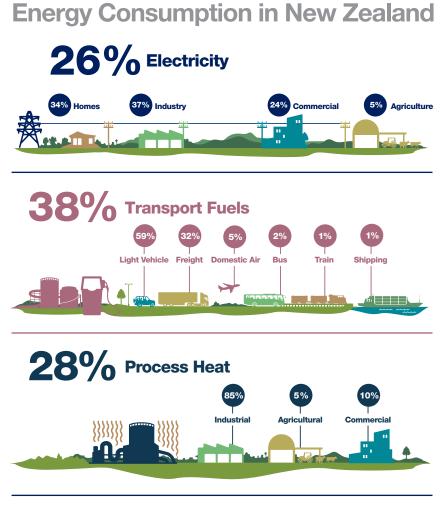
# **EECA's Operating Environment**

EECA's activities, goals and strategy are influenced by the broader context in which we operate.

In order to deliver value and achieve the best possible improvement in energy efficiency and maximise the use of renewable energy, we focus on the areas with the greatest realisable potential. That means looking at where energy is currently used and also at the other benefits that come with energy efficiency improvements to New Zealand's economy, the health of our people and the success of our businesses.

## Energy in New Zealand

New Zealand's energy use is largely comprised of electricity, transport, and industrial and process heat. Around 31% of this is from renewable sources with the remainder from fossil fuels. Transport uses 38% of our energy and is almost 100% fossil fuelled, making it the largest contributor to New Zealand's energy-related carbon dioxide (CO<sub>2</sub>) emissions. Businesses and government consume around 67% of our total energy, while consumers use 33%.



**8%** Other

Includes some business transport and non-electric residential.

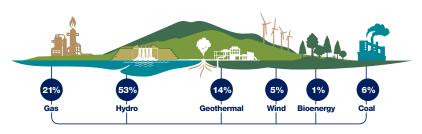
#### New Zealand's energy resources

New Zealand has abundant renewable energy resources, which are already used extensively for electricity generation, but could be used more as fuel sources for business process heat and transport.

New Zealand is virtually unique in the world in having significant sources of grid-scale renewable electricity generation available to be developed. It means that government subsidies that are used overseas in order to promote renewable energy are not required here. It also means that electric vehicles would be doubly effective in a New Zealand context for reducing emissions in the transport sector: not only are they efficient but they would run on New Zealand's highly renewable electricity.

New Zealand has a number of sources of heat energy that could be exploited; for example, wood energy and geothermal energy that can be used for industrial processes like timber drying. These can be constrained by location however – higher temperature geothermal energy is mainly limited to areas of volcanic activity, while wood energy is most cost-effectively used close to where it is milled.

### **Sources of Electricity**



#### The economy

One of the Government's four major priorities is building a productive and competitive economy. Energy efficiency has an important role here with around \$2.4 billion worth of cost-effective energy efficiency savings available across the economy. With exporters facing a high dollar and the fallout of the global economic crisis, actions to save on energy costs – sometimes for little or no investment – can assist with productivity and profit.

Households are also receptive to low-cost energy improvements. EECA plays an important role in assisting households to identify the best and most cost-effective opportunities available.

#### The environment

In New Zealand, the energy sector presents an opportunity to costeffectively reduce CO<sub>2</sub> emissions. Reducing emissions helps businesses to improve their environmental credentials, which is particularly useful for exporters selling to carbon-sensitive overseas markets.

### **K&L NURSERIES**

This year's EECA Awards Supreme winner, K&L Nurseries from Christchurch, is an excellent example of a small-scale renewable energy project. A family-run flower growing operation producing more than two million stems of cut flowers a year, K&L Nurseries sourced an advanced boiler from Europe which runs on their own green waste. The boiler has enabled K&L to stop using coal and run solely on renewable, carbon neutral biomass. The \$100,000 saved in annual energy costs is pretty substantial for a small family-run business, and the avoidance of CO<sub>2</sub> emissions gives them a competitive edge.



## **ANZCO FOODS**

Major food group ANZCO Foods recently hit its target of saving 25 gigawatt hours of energy and \$2.1 million, since putting an energy management programme in place in 2013. As one of New Zealand's largest exporters with annual sales of \$1.3 billion, smart energy use is part of ANZCO's wider story of environmental stewardship.



# EECA's Strategy and its Outcomes

EECA's long-term strategy is influenced by the New Zealand Energy Efficiency and Conservation Strategy (NZEECS). The NZEECS is required by the Energy Efficiency and Conservation Act 2000 and is a companion document to the New Zealand Energy Strategy (NZES).

The NZES sets out the Government's strategic direction for the energy sector and the role energy plays in the New Zealand economy. It details high-level outcomes and specific targets that EECA is working to achieve. These 'areas of focus' include:

- > warm, dry, energy efficient homes
- > reducing energy-related greenhouse gas emissions
- > developing renewable energy resources
- enhancing business competitiveness through energy efficiency
- > better consumer information to inform energy choices
- > an energy efficient transport system
- > embracing new energy technologies
- > oil security and transport.

#### **Government priorities**

Alongside the NZES, EECA's long-term strategy and programmes:

- > support delivery of the Government's four broader priorities: building a more productive and competitive economy; managing government finances; delivering better public services within tight financial constraints; and rebuilding Christchurch
- > focus on opportunities for businesses to improve productivity through enhancing competitiveness and to reduce energy-related emissions in line with the Business Growth Agenda – which includes 'transitioning to a low-emissions economy'.

EECA's long-term programmes support delivery of the Government's priorities including:

Increased productivity and a more competitive economy

- by helping people stay healthier in their homes, so they can better participate in education and work
- > by reducing costs on the health system
- by helping businesses save on energy costs, allowing savings to be reinvested in other parts of their business or the economy

- by helping businesses improve their position and reputation in key export markets where energy and emissions impacts are of increasing importance
- by helping businesses identify new market opportunities based on energy efficient and renewable technologies
- > by helping businesses and households reduce fuel and other transport-related costs.

#### Supporting the rebuild of Christchurch

- by providing advice on cost-effective energy efficient and renewable technologies for houses, as part of the rebuild
- by supporting research projects to identify ways of building back smarter
- by providing advice on the design and build of commercial buildings to incorporate cost-effective, energy efficient and renewable technologies as part of the rebuild
- > by advising on new energy-related infrastructure, such as a district energy scheme.

Improving the thermal performance of New Zealand homes

- > through our flagship insulation programmes
- > by helping people identify opportunities to improve the energy efficiency of their houses.

Tackling poverty, especially as it affects children

- by targeting insulation programmes where they are most needed: low-income households with children, elderly and others with high health needs
- > by reducing households' energy and health costs.

Reducing energy-related greenhouse gas emissions

> through initiatives in the transport and industrial heat sectors, which are the two biggest areas of opportunity for CO<sub>2</sub> emissions reduction and energy savings.

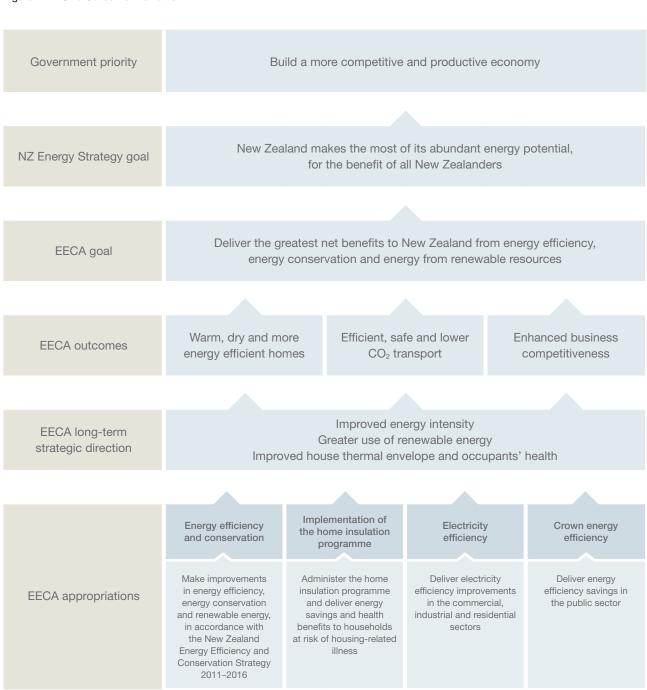
Improving oil security and reducing reliance on imported fuels

> by advising on new opportunities to promote uptake of renewable fuels and technologies and reduce fossil fuel use (for example, through helping businesses, schools and hospitals switch from fossil-fuelled to wood-fuelled boilers).

#### **Outcome Framework**

Figure 1 shows how the outcomes EECA is focusing on contribute to EECA's goal, the goal of the NZES and to the Government's priority of building a more competitive and productive economy.

These outcomes are also reflected in our Statement of Intent for the next four years. The Statement of Service Performance presented in Part B of this Annual Report includes the progress EECA made towards achieving these outcomes in 2013/14.



#### Figure 1: EECA's Outcome Framework

### The benefits of improved energy efficiency and conservation

In addition to the outcomes outlined in the Outcome Framework, smarter energy choices can go beyond simple money saving to have economic, environmental and social benefits.

These benefits are outlined in Figure 2.

#### Figure 2: Benefits of EECA programmes

Impact	Benefit	Example of EECA's work
Economic	Reduced costs	We provide lots of tips on easy and low-cost ways to save on the household power bill
Economic	Improved export competitiveness	We are signing energy management agreements with New Zealand's major exporters
Economic	Reduced costs	We provide advice to help businesses save at least 20% of their energy costs
Economic	Improved business productivity	We show businesses how they can boost production capacity through better energy management
Economic	Enhanced international reputation	We help businesses to monitor and report on their energy use as part of the credentials presented to international customers
Social	Enhanced wellbeing	We show New Zealanders how to make their homes warmer, drier, healthier and more comfortable to live in
Social	Health benefits	Working with our partners we are insulating the homes of people who are most at risk of asthma and rheumatic fever
Social	Improved transport safety	We help fleets implement fuel efficiency programmes that save them money and improve safety
Environmental	Reduced CO <sub>2</sub> emissions	We support businesses to switch from fossil fuels to woody biomass and the direct use of geothermal energy



# Part B

## Measuring the Difference EECA Makes

# Statement of Responsibility

In terms of the Crown Entities Act 2004, the Board is responsible for the preparation of the Energy Efficiency and Conservation Authority's financial statements and the Statement of Service Performance and for the judgements made in them.

The Board of the Energy Efficiency and Conservation Authority has responsibility for establishing and maintaining a system of internal control designed to provide reasonable assurance as to the integrity and reliability of financial reporting.

In the Board's opinion these financial statements and Statement of Service Performance fairly reflect the financial position and operations of the Energy Efficiency and Conservation Authority for the year ended 30 June 2014.

Signed on behalf of the Board:

RCLO.

Tom Campbell CHAIR

September 2014

lowden

Marion Cowden Chair of Risk and Audit Committee

# Statement of Service Performance

The following sections outline EECA's Statement of Service Performance against its Statement of Intent for the 2013/14 financial year. The diagrams below show the outcomes to be achieved across the consumer (residential), business and transport sectors.



# Residential

The residential sector (excluding transport) is responsible for about 12% of total energy use, and about 8% of energy-related  $CO_2$  emissions.

In 2013/14, EECA's residential initiatives delivered over **\$432 million** in energy savings and health benefits. EECA's goal is for New Zealanders to have warm, dry and more energy efficient homes. This outcome was set in the Statement of Intent and to achieve this, we focus on three impact areas:

- 1. Improved energy awareness (Impact 1)
- 2. Improved efficiency of residential products (Impact 2)
- 3. Improved thermal envelope of homes (Impact 3).

We achieve these improvements by influencing the energy choices of people in their homes (what we do, how we use appliances and how we choose the homes we rent or buy) using a combination of:

 information campaigns (ENERGY SPOT and ENERGYWISE)

- promoting the most energy efficient products (ENERGY STAR)
- regulatory measures to remove the least efficient products and provide consumers with information on how much energy products use (Minimum Energy Performance Standards (MEPS) and Mandatory Energy Performance Labels (MEPL))
- funding to overcome the financial barrier in the form of our residential insulation retrofit programmes (Warm Up New Zealand).

#### In 2013/14 the combined

programmes in the residential sector delivered over \$432 million in energy cost savings and health benefits.<sup>1</sup>

Based on costs of 5.2 PJ avoided in the consum sector over the life of the measures, plus \$300 million in national benefits of EECA's insulation programmes over the lifetime of the measures, based on Motu research. Note that houses insulated exceeded those in the Statement of Intent by 37%.



## Impact 1: Improved energy awareness

We believe that, when armed with good information, New Zealanders will make better energy choices. Information programmes are our primary means of improving energy awareness. Our programmes encourage easy and low-cost ways to save on household energy bills, and give independent information on how to make homes warmer, drier, healthier and more comfortable to live in.

Consumers need to know where to go for more information and what to look for when purchasing

products. The measures we use to see if this is happening are:

- > brand awareness of ENERGYWISE
- > delivery of the ENERGY SPOT television series
- > awareness of the ENERGY STAR mark
- effectiveness of the RightLight efficient light bulb campaign
- > use of EECA websites.

## **ENERGYWISE** information campaign

ENERGYWISE brand awareness is relatively high. We know we can't reach everyone, but reaching two out of three consumers is the minimum so they continue to know the brand they can trust and go to for information and advice.

Every year we look at the most cost-effective way to maintain that level of awareness. In 2013/14 we thought we could maintain this at 69% but taking ENERGY SPOT off air for six months turned out to be too much of a cut, with the target only partially achieved at 65% awareness.

ENERGYWISE AWARENESS			
<b>Target:</b> Maintain awareness of the ENERGYWISE brand at 69%	Results 2010/11 <b>61%</b>		
The difference we made: 65% awareness of ENERGYWISE brand	2011/12 66%		
	2012/13 <b>70%</b>		
Result at June 2014	65%		



## The ENERGY SPOT

The ENERGY SPOT television series is EECA's most effective awarenessraising tool. The specific output for the ENERGY SPOT campaign in 2013/14 was to deliver 30 episodes, which was achieved. The episodes covered a range of consumer topics including power saving, water heating, appliances, vehicles, efficient driving and tyre pressure.



The number of New Zealanders the series reached in 2013/14 was 62% - again, the target was impacted by ENERGY SPOT being off air for six months. As a result of this experience the ENERGY SPOT will be spread over a broader timeframe in 2014/15.



The most important measure of the ENERGY SPOT success is the percentage of viewers who take action as a result of seeing the episodes. Our target in 2013/14 was to inspire 40% of viewers to take action. Market research indicates that we achieved 39%, with actions taken ranging from turning off appliances and lights when not in use, to installing energy efficient light bulbs or draught stopping in winter.

#### **ENERGY SPOT EPISODES** Results Target: Deliver a minimum of 30 2010/11 episodes that address key New information barriers measure What we did: 2011/12 33 ENERGY SPOT New measure

Result at June 2014

2012/13 New measure

33

episodes

	ENERGY SPOT RECALL	
	Target:	Results
	Deliver effective energy efficiency messages that reach 65% of television viewers aged 18 and over <b>The difference we made:</b> 62% ENERGY SPOT recall	2010/11 New measure
		2011/12 New measure
		2012/13 <b>68%</b>
	Result at June 2014	62%

ENERGY SPOT ACTION		
<b>Target:</b> Inspire 40% of people to take action as a result of seeing the ENERGY SPOT	Results 2010/11 <b>37%</b>	
<b>The difference we made:</b> 39% of viewers take action	2011/12 <b>40%</b>	
	2012/13 <b>41%</b>	
Result at June 2014	39%	



## The ENERGY STAR endorsement mark



Raising awareness and inspiring action not only involves encouraging changes in how we use things, but also making us aware of the impact of our choices in the appliances we buy.

To help consumers understand the impacts of their choices, EECA champions another information campaign – the voluntary ENERGY STAR mark, which helps customers identify the

most energy efficient models available for different products. The ENERGY STAR programme applies to a wide range of appliances from space and water heating appliances to whiteware, lighting, office equipment and home entertainment.

Success of this campaign is measured through people's awareness and understanding of the mark, and through measuring the market share of ENERGY STAR qualified products.

Consumer awareness of the mark is high at 77%. With awareness must come understanding. We need to ensure that consumers understand that the ENERGY STAR mark shows the product is one of the most energy efficient in its class. EECA's target was to increase consumer understanding of ENERGY STAR to 58%. The target was partially achieved, with 51% of consumers understanding ENERGY STAR. There is a work programme in place for 2014/15 and we are working to promote greater consumer understanding of the mark.

Monitoring the market share of ENERGY STAR qualified products (the proportion of products sold that are ENERGY STAR qualified) is another way to measure its success. In 2013/14, EECA's aim was for an average of 31% – that is, for more consumers to purchase an ENERGY STAR product. This was exceeded, by increasing the market share to 38%. Notably, ENERGY STAR products in the heat pump category, while making up 26% of models on the market, accounted for 72% of overall sales, an increase from 68% in 2012/13.<sup>2</sup>



An example of how an ENERGY STAR partner used the mark in product advertising.

To maintain the quality of the ENERGY STAR mark, specifications for ENERGY STAR are regularly added or revised. In 2013/14, nine revised specifications were launched including computers, monitors, televisions, heat pumps (ducted and non-ducted), fridges and freezers, LED lamps and luminaires, and imaging equipment.

2 Derived from sales of whiteware appliances, heat pumps and – for the first time – compact fluorescent lamps and televisions. EECA only collects sales data for products covered by the Energy Efficiency (Energy Using Products) Regulations 2002. This does not include all products covered by ENERGY STAR.



#### ENERGY STAR AWARENESS

Target: Increase brand awareness of the ENERGY STAR brand to 80%	Results
	2010/11 <b>77%</b>
The difference we made: 77% ENERGY STAR brand awareness	2011/12 <b>78%</b>
	2012/13 <b>79%</b>
Result at June 2014	77%

ENERGY S	STAR UNDERS	TANDING
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Target:	Results
Increase consumer understanding of ENERGY STAR to 58%	2010/11 New measure
The difference we made: 51% ENERGY STAR consumer understanding	2011/12 New measure
	2012/13 <b>57%</b>
Result at June 2014	51%

#### ENERGY STAR MARKET SHARE

Target: Increase average market share of ENERGY STAR qualified products to 31% What we did: 38% ENERGY STAR average market share	Results
	2010/11 New measure
	2011/12 New measure
	2012/13 <b>31%</b>
Result at June 2014	38%

#### **ENERGY STAR PRODUCTS**

	Target: Introduce four new or upgraded ENERGY STAR specifications What we did: Nine new or revised ENERGY STAR specifications	Results
		2010/11 Four new or revised
		2011/12 Two new or revised
		2012/13 Three new or revised
	Result at June 2014	Nine new or revised

## **RightLight – consumer efficient** lighting campaign

The RightLight information campaign has been running since 2009 and encourages households to choose more energy efficient lighting. In 2013/14, we achieved a 35% year-on-year increase in sales of efficient lighting (April 2013-March 2014). This means that nearly one in four bulbs sold in supermarkets in the past year were energy efficient - the overall market share is nearly 24% - saving households money and reducing energy waste.



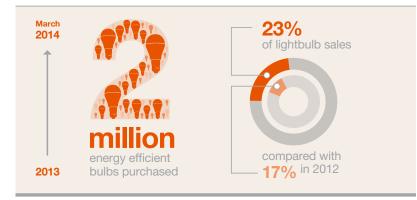


Performance standards introduced for energy efficient bulbs. The most energy efficient can use the ENERGY STAR.



Equivalent to the energy consumption of 11,000 homes.





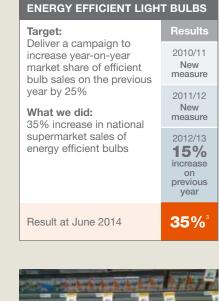
Lighting is 12% of a home's energy use.

The average home has 30 lightbulbs



Replacing the six most used incandescent bulbs with energy efficient ones can save a household \$120 a year.\*

\*Savings assume a mix of high and low use bulb replacements







RightLight in-store advertising.

3 Includes CFL, LED and Eco-halogen bulbs.



## **EECA's websites**

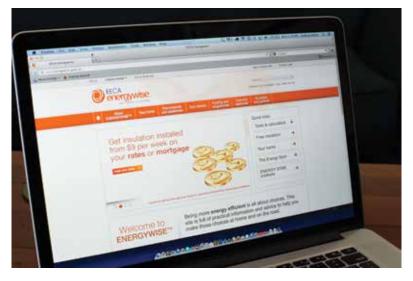
Once our information campaigns help raise awareness and capture the interest of consumers, EECA's websites provide detailed information to help guide smart energy choices. We run three websites in order to cater to our audiences' different needs:

- > a corporate website (www.eeca.govt.nz)
- > one targeted at consumers (www.energywise.govt.nz)
- > one for businesses (www.eecabusiness.govt.nz).

This year we exceeded our targeted number of website visits with 1.5 million visits.

The ENERGYWISE website is our most popular. While updates are continually made to the information, a refresh will occur in 2014/15 on all EECA websites to ensure they continue to meet the needs of the target market and information is easy to find.

Partnerships are important to the delivery of nearly all of EECA's programmes, including the enhancement of our websites. For example, in 2013/14 we developed a tyre pressure web tool in conjunction with NZTA and Z Energy. This enables car owners to easily find the correct pressure for their tyres – removing a key information barrier to improved fuel efficiency.





EECA WEBSITES	
Target:	Results
Maintain the three EECA websites to deliver informative and useful information as measured by customer visits of 1,350,000 and a website availability of at least 97%	2010/11 New measure
	2011/12 New measure
What we did: 1,559,000 visits 99% availability	2012/13 New measure
Result at June 2014	1,559,000 visits

## Impact 2: Improved efficiency of residential products

EECA wants to ensure New Zealand doesn't become a dumping ground for poorly performing products and, alongside informing consumer choice, we use Minimum Energy Performance Standards (MEPS) to improve the average efficiency of a product class by setting energy efficiency levels that products must meet or exceed to access the New Zealand market. MEPS result in products that cost consumers and businesses less to run and reduce overall energy demand, without limiting innovation, product service or consumer choice.

## **Energy Rating Label**



In addition to having a minimum standard, we want consumers to have information at point of sale about the comparable energy efficiency of an appliance – that's where the Energy Rating Label comes in. The Mandatory Energy Performance Label (MEPL) allows consumers to factor the running costs of a product over its lifetime into their purchase decisions. While MEPS set a benchmark for acceptable levels of energy performance, labelling gives comparative information that enables consumers to make an informed choice at point of purchase for more energy efficient products.

# Residential products in the labelling and standards programme

Currently, product classes covered by MEPS and labelling represent 60% of household energy use. By locking in higher efficiency of residential products the programme has saved an estimated 8.6 PJ of energy since it started in 2002, worth \$230 million.

Residential products standards resulted in 1.9 PJ of energy savings in 2013/14.<sup>4</sup> EECA collects annual sales data for products covered by the programme and attributes energy savings to these products year on year (based on such factors as their energy consumption and key assumptions about their usage).

4 Annual savings for all products sold under the programme and assumed to still be operating.

5 The target of 4.6 PJ was the total projected savings for all products activity (residential and business) based on a set of assumptions that were updated during the reporting year. Using the assumptions underpinning the 4.6 PJ target EECA achieved savings of 4.8 PJ for the products activity (residential and business) for the year to 31 March 2013 (sales data reported in arrears). The targeted savings for residential products activity for the sales to 31 March 2013 using the updated assumptions were 1.9 PJ. Actual savings for the period were 1.9 PJ.



#### MEPS AND MEPL

Target: A total of 24 products or product groups are now subject to labelling or minimum standards What we did: 25 products or product groups	Results
	2010/11 New measure
	2011/12 New measure
	2012/13 <b>22</b> products
Result at June 2014	25

#### ENERGY SAVINGS FROM RESIDENTIAL PRODUCTS

Target: Energy savings of	Results
4.6 PJ <sup>5</sup> attributed to product standards in the residential sector (reported programme	2010/11 New measure
savings for the 12 months to March 2013) The difference we made:	2011/12 New measure
1.9 PJ energy savings attributed to product standards in the residential sector	2012/13 New measure
Result at June 2014	1.9 PJ

# Residential product specifications and standards

It is important to ensure MEPS specifications are revised and upgraded in order to keep up with developments in product technology, and to provide incentives for manufacturers to continually improve the energy efficiency of products.

In 2013/14, we met our target for two new and one revised product classes to be subject to labelling or minimum standards. New standards were introduced for computers and monitors and one revised product standard to include multi-split air conditioners came into force during the year, raising the total product classes under regulation to 25. These standards are forecast to save over \$151 million in avoided electricity costs over the next decade.

## Working with industry

Before standards come into force, they require consultation and regulation. EECA works closely with industry so the labelling programme adds value to the product rather than compliance costs for industry. Industry consultation occurs before new products are added to the MEPS and labelling programme. In 2013/14, our target was to consult on three proposed new product standards. This was achieved with consultations being completed on standby power, heat pump water heaters and electric storage water heaters. It is estimated these proposed measures will save New Zealand around \$136 million over their lifetime.

## **HEATPUMPS**

Since MEPS and labelling were introduced for heat pumps in New Zealand in 2005 their sales weighted heating efficiency has improved by 32%, saving residential consumers an estimated 0.4 PJ in energy consumption in 2013 alone.





#### NEW AND REVISED STANDARDS

NEW AND NEVICED CIAN	DANDO
Target:	Results
Two new and one revised products or product classes added	2010/11 Five new and two
What we did: New standards were	revised standards
introduced for computers and monitors	2011/12 Two in progress
Revised product standard to include multi-split air conditioners	and two delayed
	2012/13 Two new and one revised standards
Result at June 2014	Two new and revise

#### INDUSTRY CONSULTATION

Target:	Results
Consult with industry on three proposals to introduce new standards for products <b>What we did:</b> Consultations on three proposed new product standards	2010/11 Consultation on four new and one revised standards
	2011/12 Consultation on five new or revised standards
	2012/13 Consultation on five new or revised standards
Result at June 2014	Three consultations

## Regulation

MEPS are implemented through regulation. EECA advances each of the products and product classes targeted in its work plan through the required stages to develop regulation (including investigation, consultation, Cabinet approval and regulation). In 2013, water heaters, standby power, battery chargers and digital video recorders were all advanced further through the regulation development process, achieving our target for 2013/14.

# Working in partnership with Australia

EECA is part of the trans-Tasman Equipment Energy Efficiency (E3) programme, which develops joint MEPS and labelling measures for the Australian and New Zealand markets. This allows EECA to leverage Australian investment in the development of standards, costing around 70% less than if New Zealand did this work on a standalone basis. MEPS and labelling measures for both household appliances and industrial and commercial equipment are developed through a joint Australia/New Zealand work programme and incorporated into New Zealand's Energy Efficiency (Energy Using Products) Regulations 2002. In 2013/14, a five-year work plan for the trans-Tasman E3 programme was agreed.

#### REGULATION

Target: Maintain and review	Results
regulated product classes and advance products and product classes through the stages of	2010/11 New measure
regulation	2011/12
What we did: Water heaters (electric	New measure
and electric heat pump), standby power, battery chargers and digital video recorders	2012/13 New measure
Result at June 2014	Four product

#### DELIVERING THE TRANS-TASMAN WORK PLAN

	<b>Target:</b> New five-year trans- Tasman work plan developed for Cabinet consideration	Results
		2010/11 New measure
	What we did: Work plan agreed	2011/12 New measure
		2012/13 New measure
	Result at June 2014	Work plan agreed

## Impact 3: Improved thermal envelope of homes

There are 1.55 million privately occupied dwellings in New Zealand; 1.4 million (90%) of those were built prior to 2000 when building regulations came into effect requiring higher levels of insulation in walls and ceilings – ensuring a good 'thermal envelope'.

The 'thermal envelope' is the way in which the inside of a house is separated from the elements outdoors. It can be improved by having good levels of insulation in external walls, the ceiling and underfloor to keep warm air in and dampness out.

A typical new home (built after 2000) will have high levels of insulation in the ceiling, walls and underfloor. Older homes were commonly built without insulation, the windows are single glazed and they are draughty. Some have been retrofitted with insulation but many still have little or no insulation making it hard for the occupants to heat the home to a healthy and comfortable temperature. This results in higher levels of energy use and leaves children and elderly more vulnerable to respiratory illness.

This old, cold and damp housing stock needs to be addressed if we are going to reduce energy waste in the residential sector, and improve the health and wellbeing of New Zealanders. The Government provides opportunities for New Zealanders to receive a subsidised insulation retrofit through two funding programmes – Warm Up New Zealand: Heat Smart and Warm Up New Zealand: Healthy Homes. These two programmes have helped to insulate a combined total of just over 260,000 New Zealand households, including nearly 118,000 low-income households.

# Delivering the residential insulation programme

In 2013/14 the two insulation programmes insulated over 35,000 houses of which 20,000 were low-income households.<sup>6</sup> This created an estimated \$300 million in health benefits to New Zealand.



The Warm Up New Zealand: Heat Smart programme was launched in 2009 and has now come to an end. Through this programme we have helped to insulate just over 241,000 New Zealand households, well in excess of a budgeted target of 188,500. In achieving this, the programme has created an estimated \$1.28 billion in net health and energy benefits to New Zealand.<sup>7</sup> In 2013/14, the target for the Warm Up New Zealand: Heat Smart programme was to insulate 10,000 homes. This target was exceeded with over 16,600 homes insulated at a cost to the Government of \$15.9 million.

6 The figures will be finalised in September.

7 These benefits have been calculated based on the *Motu* report. Benefits are calculated over a 30-year period for insulation.



#### WARM UP NEW ZEALAND: HEAT SMART

Target:	Results
Financial assistance in retrofitting insulation to 10,000 homes	2010/11 56,800 homes
What we did:	insulated
16,655 houses retrofitted with insulation	2011/12 57,000 homes insulated
	2012/13 60,300 homes insulated
Result at June 2014	16,655 homes insulated



Now the subsidised programme is targeted to those most in need under the Warm Up New Zealand: Healthy Homes programme. Starting in September 2013, the Healthy Homes programme has already exceeded its target and delivered over 19,000 fully funded insulation retrofits to target families with children, the elderly and people at risk of housing-related illness (at a cost to the Government of \$33.1 million). Research shows that children, the sick and elderly gain the greatest benefits from a warmer, drier home.

EECA is working closely with government and health agencies to develop referral systems to the Warm Up New Zealand: Healthy Homes programme to reach those with the greatest need. In Auckland, EECA is working with the Ministry of Health's rheumatic fever unit and with the Auckland Social Sector Leaders' Group (including the Ministry of Social Development, New Zealand Police, Work and Income New Zealand, the Corrections Department of New Zealand and ACC). EECA is also working closely with the Ministry of Social Development to identify and reach households most in need.



The Waitai family of Papakura - their rental property is much warmer after being insulated through WUNZ:HH.

#### WARM UP NEW ZEALAND: HEALTHY HOMES (WUNZ:HH)

	Target: Improved thermal efficiency of low-income or high-health-needs pre- 2000 houses through the installation of insulation in 16,000 homes What we did:	Results
		2010/11 New measure
		2011/12 New measure
19,028 houses retrofi with insulation	19,028 houses retrofitted with insulation	2012/13 New measure
	Result at June 2014	19,028 homes insulated



## Thermal envelope of New Zealand homes

EECA is continuing to target the remainder of old, cold and damp New Zealand homes. We believe that a combination of information on the benefits of insulation through ENERGY SPOT and other awareness-raising tools and some assistance with the upfront cost of insulation will motivate homeowners to transform their home into a warm, dry, comfortable one.

For those households not eligible under the Healthy Homes programme, 10 local councils, representing 56% of the population, have committed to offering households low-cost finance options. Through 'voluntary targeted rates' (VTR), local councils can fund insulation retrofits and progressively recover the cost from the property through rates over a nine- or 10-year period.





ENERGY SPOT ad promoting VTR.

The target for 2013/14 was that 55% of New Zealand homes have an improved thermal envelope.

EECA's Warm Up New Zealand programmes in 2013/14 insulated more than 35,000 homes, taking the total insulated through EECA since 2009 to just over 260,000. The Warm Up New Zealand: Healthy Homes programme exceeded delivery of retrofits in support of the thermal envelope target.

However, this strong delivery was offset by lower than expected delivery of retrofits under VTR. The VTR programme took longer than expected to introduce into councils and service providers. We expect the uptake of retrofits supported by VTR to grow strongly in 2014/15 as we exit from Warm Up New Zealand: Heat Smart, embed the VTR scheme and promote the programme to households. As a result of this we achieved just under target at 54%.

THERMAL ENVELOPE		
Target:	Results	
An increasing percentage of New Zealand houses have an improved thermal envelope to 55%	2010/11 New measure	
<b>The difference we made:</b> 54% of houses	2011/12 New measure	
	2012/13 New measure	
Result at June 2014	54%	



# Residential insulation programme – maintaining value for money

To support the Warm Up New Zealand insulation retrofit programmes, EECA has implemented a risk-based auditing regime which provides confidence that insulation retrofits are fit for purpose (safe and effective) and represent value for money. The contracts with service providers outline the minimum standards any retrofit must meet to qualify for the programme.



#### WARM UP NEW ZEALAND: HEAT SMART (WUNZ:HS)

· · · · · ·	
Target: Correctly submitted	Results
financial assistance claims	2010/11 New
are processed and paid within 30 days	measure
What we did:	2011/12
Target amended to align	New measure
with standard commercial terms of the 20th of the	measure
month following receipt	2012/13 New
	measure
Result at June 2014	Achieved
Result at Julie 2014	Achieveu
Target:	
Funding arrangements are consistent with the basic	Results
principles articulated by the Controller and Auditor	2010/11
General	New measure
At least 5% of installations	
are audited, 93% pass and all identified faults are	2011/12
rectified	New measure
What we did:	
At least 5% of installations were audited, total pass	2012/13
rate of 94.6%, and all	New
identified faults were rectified	measure
Result at June 2014	Achieved
Townst	Deculto
Target: Audit processes	Results
completed within 90 days except by prior	2010/11 Achieved
arrangement	
What we did:	2011/12
No instances where a scheduled audit has	Achieved
exceeded the 90 days	0010/10
	2012/13 Achieved
Result at June 2014	Achieved
	Conicved

#### WARM UP NEW ZEALAND: HEALTHY HOMES (WUNZ:HH)

HEALTHY HOMES (WUNZ:HH)		
Target:	Results	
Correctly submitted financial assistance claims are processed and paid within 30 days	2010/11 New measure	
What we did: Target amended to align with standard commercial terms of the 20th of the	2011/12 New measure	
month following receipt	2012/13 New measure	
Result at June 2014	Achieved	
<b>Target:</b> Funding arrangements are consistent with the basic	Results	
principles articulated by the Controller and Auditor General	2010/11 New measure	
At least 5% of installations are audited, 93% pass and all identified faults are rectified	2011/12 New measure	
What we did: At least 5% of installations were audited, total pass rate of 98%, and all identified faults were rectified	2012/13 New measure	
Result at June 2014	Achieved	
Target:	Results	
Audit processes completed within 90 days except by prior arrangement	2010/11 New measure	
What we did: No instances where any scheduled audit has	2011/12 New measure	
exceeded the 90 days	2012/13 New measure	
Result at June 2014	Achieved	





"One of the highlights of the past five years' work has been the Trust's partnership with the Energy Efficiency and Conservation Authority. Since 2008 the Trust has contributed \$15 million to Warm Up New Zealand projects in

Northland and Auckland. From an ASB Community Trust perspective this project has ticked many boxes: it is collaborative, involving multiple partners at central government, local government and community level. The project targets high-need communities, is evidence based and has clear measurable health outcomes."

Jenny Gill, CEO of ASB Community Trust

# Residential insulation programme – service providers and funding partners

The Warm Up New Zealand: Healthy Homes and the Warm Up New Zealand: Heat Smart programmes are delivered in partnership with service providers and third parties such as district health boards, community trusts and iwi trusts. These groups make a huge difference by investing additional funding to help low-income households, especially those with health needs, enjoy the benefits of a warmer, drier home at little or no cost to themselves.

The effectiveness of EECA's insulation retrofit programmes was boosted by around \$28 million of funding from these third parties in 2013/14. A total of \$108 million of funding has been contributed since the start of the programmes.



# Thank you to our partners who have made an enormous difference to the lives of New Zealand families

ASB Community Trusts Charitable **Purposes Limited** Auckland Council Property Limited Bay of Plenty District Health Board **Brent Thomas Trust** Capital and Coast District Health Board Central Energy Trust Climatize **Community Business Community Energy Action** Cottingham Family Warm Up For Winter Charitable Trust Cozy Kiwi Charitable Trust **Dianne Fawcett** Eastern Bay Energy Trust Electricity Invercargill Limited GK and MR Thomas Partnership GMF Trust Gore District Council Harcourts - Image Realty Hawke's Bay District Health Board Hawke's Bay Power Consumers Trust

Right: Representatives of ASB Community Trust with Energy and Resources Minister Simon Bridges and EECA General Manager Residential Robert Linterman.

He lwi Kotahi Tatou Trust Home&dry Limited Hutt Mana Charitable Trust I Build Group Limited Invercargill City Council Kensair Kiwi Comfort Fund Koa Group Limited LineTrust South Canterbury MainPower Trust Manaia Health (primary health organisation) Napier City Council New Plymouth District Council NRAIT Omokoroa Country Estate OMV (NZ) Ltd Orion New Zealand Limited Otago Community Trust R & F Caddigan (Rotorua/Taupo) Limited Rangitikei District Council Ray White - Buy West Property Management

Ray White – Supreme Property Management Real Living – Remuera Gardens

Southland Warm Homes

Sustainability Trust

Taranaki Electricity Trust

Tauranga Energy Consumer Trust

Te Ati Hau Trust

Te Kotahitanga o Ngati Whakaue Assets Trust

Terra Lana

The Power Company Limited

**TSB** Community Trust

Tu Whare Oranga Trust

Tuwharetoa Settlement Trust

Turanga Health

Waipa Networks Trust

Warmer Homes Community Trust

WEL Energy Trust

Wellington City Council

Whanganui Regional Primary Health Organisation

WISE - Better Homes





## Residential programmes – funding and costs

	Budget 2014 \$000	Actual 2014 \$000	Actual 2013 \$000
Revenue	67,379	62,293	95,716
Expenditure	68,879	64,456	95,927
Net surplus/(deficit)	(1,500)	(1,163)	(211)
Surplus/(deficit) related to financial and industry support	-	-	(211)
Surplus/(deficit) related to financial and industry support	(1,500)	<b>(1,163</b> )	-
	(1,500)	(1,163)	(211)

The decrease in revenue is primarily due to \$4.4 million of the Warm Up New Zealand: Heat Smart programme expenditure budgeted being accessed early, in the previous financial year, and due to a reduction in overhead costs associated with the programme.



# Progress towards New Zealanders having warm, dry, more energy efficient homes

The combination of EECA's work to improve energy awareness, to improve the efficiency of the products New Zealanders use in their homes and to improve the thermal envelope of New Zealand houses has resulted in continued progress towards the outcome of New Zealanders having warm, dry, more energy efficient homes.

Achieving warm, dry homes is complex and isn't something EECA can tackle alone. Newly built homes will be warm and dry because updated building regulations require adequate levels of insulation and double glazing. The older housing stock was built before higher (or any) insulation requirements so this is where our focus is. The Household Energy End Use Project (HEEP) published by BRANZ in 2010 indicates that many New Zealand homes do not meet minimum indoor temperatures recommended by the World Health Organisation (18°C and 20°C for at-risk groups such as elderly and children).

The Motu report published in October 2011 found that the thermal quality of housing affects the health of the population and household energy use.<sup>8</sup> Along with preventing ill health, retrofitting houses with insulation can lead to energy savings through houses becoming more energy efficient.

Since 2009, EECA's Warm Up New Zealand programmes have insulated just over 260,000 homes. Data from the evaluation of the first four years of the Warm Up New Zealand: Heat Smart programme show that insulation retrofits to ceilings and underfloor deliver significant health benefits by creating warmer indoor temperatures. The results of the evaluation report showed that the programme delivered at least \$4 in benefits for every dollar spent on the insulation. The majority of these benefits were from avoided hospitalisations and lower pharmaceutical costs. The expected benefit to New Zealand, as a result of the forecast number of homes insulated under the Warm Up New Zealand: Heat Smart and Warm Up New Zealand: Healthy Homes programmes combined to 2016, is more than \$2 billion over the lifetime of the measures. EECA cannot retrofit insulation to every old home in New Zealand – that's why we are targeting funding to the homes of those most in need and maximising the use of government funds through our funding partners. In addition to the homes insulated through EECA programmes, there are a number of homes insulated privately either by the homeowner or by builders as part of a home renovation.

The level of insulation retrofitted privately is more difficult to measure. The best data are gathered through the BRANZ's House Condition Survey report. We know from this survey that, prior to 2009, approximately 11,000 homes were being privately insulated each year.<sup>9</sup> The next report is due in 2015 at which time we will have a more robust estimate of the numbers of houses privately insulated, but we expect that the rate will have increased, as a result of improved public awareness of the benefits of insulation to around 15,000 per year. That would put the number of homes left to insulate in the region of 600,000 homes.

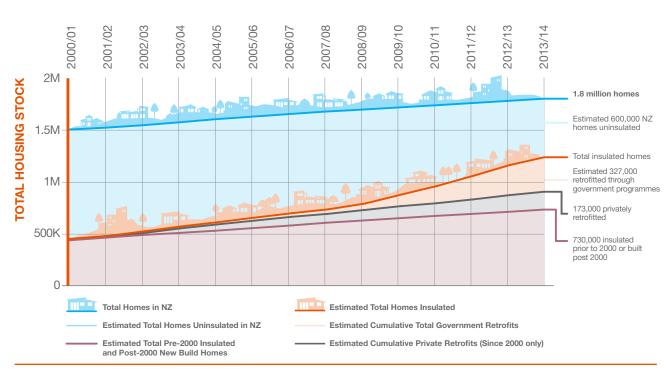
Based on the numbers outlined above, and the Motu report, we can conclude that EECA has made progress towards our desired outcome of warm, dry, more energy efficient homes.

Alongside these measures to improve thermal performance, achieving energy efficient homes is something EECA targets through a combination of behaviour change programmes, information provision and regulation of energy-using products.

3 Cost Benefit Analysis of the Warm Up New Zealand: Heat Smart Programme, prepared for Ministry of Economic Development, October 2011.

9 There is no certainty as to the quality and type of insulation installed privately, but for the purposes of this measure we assume it is adequate.



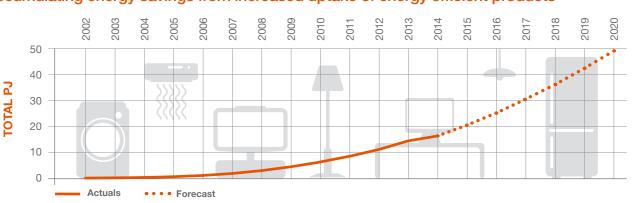


# Estimated cumulative improvements to the insulation of the New Zealand housing stock

Data collected by EECA in 2013 show ENERGY STAR rated products had 38% market share in 2013/14 – this continues the trend of increased market share since the programme was launched in New Zealand in 2005 and is an improvement on 31% market share in 2012/13.

EECA's Minimum Energy Performance Standards and Labelling programme has 25 product classes now subject to labelling or minimum standards, with 3.2 PJ of energy savings over the lifetime of the products attributed to MEPS and labelling in 2013/14. Supermarket sales data show one in four light bulbs sold in supermarkets in the past year were energy efficient. These product sales lead directly to improving the energy efficiency of our homes.

Data released by the Ministry of Business, Innovation and Employment (MBIE) in 2014 show household electricity use has decreased from 47.44 PJ in 2010 to 44.30 PJ in 2013.<sup>10</sup> We expect this trend to continue as appliances and light bulbs reach end of life and are replaced with more energy efficient ones, and as more homes have an improved thermal envelope.



# Accumulating energy savings from increased uptake of energy efficient products



# **Business**

Energy use by businesses (excluding transport) accounts for about 50% of New Zealand's total energy use, and more than 40% of New Zealand's energy-related CO<sub>2</sub> emissions.

In 2013/14 the business programmes delivered over **\$190 million** in energy cost savings and transport benefits. EECA estimates that, on average, businesses can cost-effectively reduce energy use by up to 20%. This would create significant national cost saving along with other strategic benefits to businesses including improved productivity, international competitiveness and lower  $CO_2$  emissions. EECA's Statement of Intent outcome for New Zealand businesses is improved business productivity, creating lower emissions businesses. To do this, we focus on four impact areas:

- 1. Improved energy awareness (Impact 4)
- 2. Improved industrial and commercial energy efficiency (Impact 5)
- 3. Improved efficiency of business products (Impact 6)
- 4. Greater use of renewable resources (Impact 7).

In 2013/14 the business programmes delivered over \$190 million in energy cost savings and transport benefits.<sup>11</sup>

11 National resource costs of the 8 PJ avoided in the business sector over the life of the measures, plus \$4 million in transport safety benefits over 10 years based on ACC research.

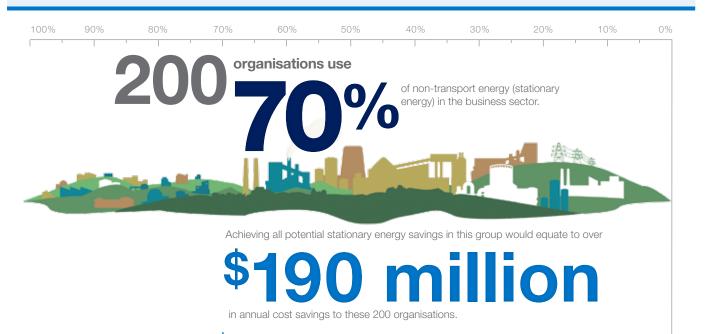
# Impact 4: Improved energy awareness

We know that many organisations are not implementing energy efficiency projects, even those with an exceptional return on investment. There can be many reasons for this, often starting with a lack of awareness about the economic benefits of these projects.

Therefore, our aim is to present compelling information to business decision-makers showing that investing in energy efficiency makes good business sense.

We need to tailor the information to the business and ensure we follow up with ongoing advice. In 2013/14, a new business-wide engagement model was developed to tailor EECA's approach to three broad business groups: large users (the top 200); medium users (next 1,000); and smaller users (remaining 200,000+).

EECA utilises different methods and programmes to increase awareness in each business group. We work both directly with the large and medium groups and indirectly through our partnership with industry groups and energy management service providers, to increase energy awareness and inspire change. The small energy user business group can access the ENERGYWISE awareness and information campaigns and the ENERGYWISE and EECA business websites.



of these organisations are not realising high-return (greater than 30% ROI) energy efficiency opportunities, and an IEA Energy Market Report 2013 shows in the period 1990-2010 New Zealand's industrial energy intensity has shown less improvement due to the energy efficiency effect than most of the other 20 IEA member countries.

<sup>2</sup>/<sub>5</sub>

of these organisations are constrained by a lack of strong energy management leadership and...



have low operational capability in energy management.

# Large energy user pilot

In order to understand how EECA can better assist businesses to achieve the greatest level of savings through energy efficiency and deliver the best value for money, we tested a new approach to businesses in 2013/14. The 'large energy user pilot' was based on the premise that if we get the right information in front of the right people in large energy-using businesses and follow up directly with them, it is more likely to result in a longerterm view of energy management than EECA's traditional project-byproject focus.

The pilot confirmed that direct engagement between EECA and large energy users can create the change needed to improve energy efficiency over the long term. We also know that it is important for us to draw on the expertise of industry service providers to support this approach. The partnerships formed through this direct engagement led to group-wide energy management programmes creating long-term plans and practices across multiple sites. The initial results are promising.

As a result of the pilot, we have modified the business programme to increase our focus on working with New Zealand's 200 top energy users. From 2014/15, we will be working directly with these organisations to address information and knowledge barriers in order to improve energy efficiency, business competitiveness and productivity.

# **TALLEYS**

In May the Talley's Group announced it was partnering with EECA to put in place an energy management system across its three largest seafood and vegetable processing sites, as well as AFFCO New Zealand's meat processing sites. Talley's goal is to save 5% of its energy use by 2016.



# AUCKLAND INTERNATIONAL AIRPORT

Auckland International Airport is working in partnership with tenants to achieve ambitious energy-saving targets supported by EECA and the Sustainable Business Council. Under the agreement, the Airport will invest more than \$3 million in projects to measure and manage energy over three years.



At the signing of the partnership agreement: Kate Alcock, EECA; Martin Fryer, Auckland International Airport Ltd; Mike Underhill, EECA; Adrian Littlewood, Auckland International Airport Ltd; Belinda van Eyndhoven, Sustainable Business Council.

# **Engaging with businesses**

EECA's aim is to get the right information to business decision-makers through engagement. This may be direct, or through partnership with service providers and industry networks, such as the Sustainable Business Council and the Energy Management Association of New Zealand.

In 2013/14, EECA worked directly with senior decision-makers from 110 organisations, exceeding our target of 100. We know that this approach, combined with partnering with industry network organisations, is an effective way of improving energy awareness and creating action.



"The Sustainable Business Council values our partnership with EECA Business. The partnership has resulted in a number of our members gaining a better understanding of opportunities for better energy management and committing to

ambitious projects that cover multiple sites or involve different companies working together. Members are also sharing their learnings with others to assist and inspire them. We look forward to continuing and growing our relationship with EECA Business."

Penny Nelson, Executive Director of the Sustainable Business Council

# Raising awareness of **EECA Business initiatives**

Market research confirms that the combination of direct approach and partnering with networks is creating much greater awareness of the assistance that EECA can provide to businesses. Awareness levels were lifted by one-third in the past 12 months.

# Willingness to act

Once businesses are aware of the support available from EECA, they need to be willing to take action to improve their energy efficiency. We achieved our aim for 31% of businesses that are aware of EECA's Business programme are also willing to act. If we look at all medium and large energy-using businesses, our market research shows that 26% are willing to act on energy efficiency opportunities in commercial, industrial and transport sectors.



#### **DELIVERING INFORMATION**

Target:	Results
Deliver information for executive-level management within target sectors to 100 organisations <b>What we did:</b> Information delivered to 110 organisations	2010/11 New measure
	2011/12 New measure
	2012/13 New measure
Result at June 2014	110 organisations

BUSINESS AWARENESS	
Target:	Results
Awareness of services (information, capability and funding) available through EECA Business	2010/11 New measure
programme in key target sectors to 35% The difference we made:	2011/12 <b>26%</b>
39% awareness of EECA Business	2012/13 <b>30%</b>
Result at June 2014	39%

BUSINESS WILLINGNESS	ТО АСТ
Target:	Results
31% of businesses that are aware, are 'willing to act' on efficiency opportunities in	2010/11 New measure
commercial, industrial and transport sectors <b>The difference we made:</b> 31% willing to take action	2011/12 <b>27%</b>
	2012/13 <b>29%</b>
Result at June 2014	31%

# Impact 5: Improved industrial and commercial energy efficiency

With improved energy awareness at the right level in an organisation, businesses will seek out energy efficiency and renewable energy products and services because they know it makes good business sense. This is the long-term change EECA is working to achieve, and we believe the information and engagement programme will help effect this change – without the need to rely on EECA co-investment in energy efficiency equipment.

# **Technology demonstrations**

To support EECA's information programmes, we fund case studies and demonstrations to showcase new technologies that help make the case for energy efficiency. In 2013/14 We agreed to support 10 technology projects which will be implemented over the next year.

# SISTERS OF NAZARETH

In June, Nazareth Care signed a contract with EECA for a technology demonstration grant. The grant will enable the installation of a new clean burning wood fuelled boiler at the new Nazareth Community of Care retirement village in Christchurch. The boiler is expected to result in annual cost savings of 50% to 70% and a reduction in  $CO_2$  emissions of 176 tonnes compared to a more traditional LPG fuelled boiler. With 63 aged care facilities in Christchurch having 24/7 heating requirements, this project has the potential to significantly influence uptake of wood fired heating technology.



Sister Dominica, Regional Superior Nazareth Care Australasia, and Kath Fox, Chief Executive Nazareth Care, share a cup of tea with members of the Sydenham community.



# **Engagement targets**

In order to influence change, EECA must first engage with the organisations that use a large proportion of energy. In 2013/14, EECA engaged – either directly or through service providers – with organisations using a combined total of 90 PJ of energy and that are responsible for \$1.6 billion of energy spend (exceeding the target for the year).

# **Industry training**

With improved energy awareness, a willingness to act within organisations and engagement with EECA or industry networks, comes the need for industry training and development. EECA supports the training of energy efficiency service providers and energy management staff in large organisations.

In 2013/14, specialised courses were run covering facilities management, commercial buildings, and boiler tuning and maintenance. Our partners are key in the delivery of training and, in 2013/14, courses were run by the New Zealand Green Building Council, the Energy Management Association of New Zealand and the University of Waikato. The target was for 300 people to receive training in 2013/14; this was achieved with 321 completing courses.



Energy Management Association Seminar.

#### **BUSINESS ENGAGEMENT**

Target:	Results
EECA commercial and industrial programmes influence organisations using 72 PJ of energy	2010/11 New measure
annually either directly or through service providers What we did: Businesses that	2011/12 New measure
collectively use 90 PJ of energy (per annum) influenced	2012/13 New measure
Result at June 2014	90 PJ

# BUSINESS ENGAGEMENT (ENERGY SPEND)

Target:	Results
Organisations responsible for \$1.4 billion of energy spend are influenced either directly or indirectly	2010/11 New measure
through service providers	2011/12
What we did: Businesses responsible	New measure
for \$1.6 billion of energy spend influenced	2012/13 New measure
Result at June 2014	\$1.6 billion influenced

# PART B: MEASURING THE DIFFERENCE EECA MAKES\_BUSINESS

# INDUSTRY TRAINING

Target:	Results
Capability building and training of service providers and industry stakeholders by training 300 individuals trained across all business sectors	2010/11 New measure
	2011/12 <b>402</b>
What we did: 321 individuals trained	2012/13 <b>696</b>
Result at June 2014	321

# Working with the industrial sector

Energy can be a major cost for organisations running industrial processes. Process heat is usually a large proportion of an industrial organisation's energy spend, and an area where there is considerable potential for energy savings. Process heat refers to the equipment and systems that produce steam, hot water and heat used in industrial processes.

EECA works with industrial organisations to understand the amount of heat they need to produce, evaluate how efficiently the system is functioning, address areas where the system can be improved, incorporate heat recovery technologies and investigate renewable energy sources.

In 2013/14, organisations using 2.8% of the energy used in New Zealand for process heat have completed projects either with EECA or EECA service providers. This exceeded our target for the period.

Industrial equipment is another big consumer of energy for these organisations. EECA works with organisations to get industrial motor systems running more efficiently and reducing waste. Efficiency projects, including energy assessments to identify opportunities, were completed for 3% of the industrial motor market in 2013/14, exceeding our target of 2.5%.

# Working with the commercial sector

There are many ways to reduce energy use and costs in commercial buildings – be it offices, retail, hospitality or education. EECA's experience has shown that energy savings of as much as 50% are possible by improving the efficiency of key energy-using systems such as heating, ventilation, air conditioning and lighting. We also know that buildings with good energy efficiency generally have lower running costs, better returns and higher occupancy rates and accommodate more productive workforces.

In 2013/14, our commercial buildings programme was oversubscribed and we supported nearly 200 projects to improve energy efficiency in commercial buildings. Projects were a mix of identifying opportunities for improvements by undertaking energy audits and installing monitoring equipment, and realising improvements through replacing or upgrading inefficient equipment.

EECA also helped to improve the energy performance of new buildings in Christchurch through our design advice service. We have approved projects to give energy efficiency advice on building designs covering over 790,000 square metres of commercial floor space. Since the programme began in 2012, design advice has identified cost-effective annual energy efficiency savings of around \$6.8 million, if the changes are implemented.

# gy **Target:**

An additional 2.5% of the industrial process heat market is subject to projects through	2010/11 New measure
EECA and EECA service	2011/12
providers	New
The difference we made:	measure
2.8% of the process heat	2012/13
market subject to EECA	New
projects	measure
Result at June 2014	2.8%

**PROCESS HEAT EFFICIENCY** 

Results

#### INDUSTRIAL MOTOR EFFICIENCY

Target:	Results
An additional 2.5% of the industrial motor system market is subject to projects through	2010/11 New measure
EECA and EECA service providers The difference we made:	2011/12 New measure
3% of the industrial motor market subject to EECA's programme	2012/13 New measure
Result at June 2014	3%

## **COMMERCIAL PROJECTS**

Target: 70 commercial projects contracted during the year	Results
	New
What we did:	measure
198 projects contracted	2011/12 New measure
	2012/13 New measure
Result at June 2014	198 projects

# CHRISTCHURCH BOTANIC GARDENS VISITOR CENTRE

EECA helped with design advice for the new Visitor Centre at the Christchurch Botanic Gardens. The advice identified and recommended changes to lighting, HVAC and hot water systems that could save up to 8,500 kWh per annum — equivalent to the consumption of an average New Zealand home.



# **Crown Loans**

For public sector organisations, the Crown Loans Scheme supports energy projects in local and central government offices, libraries, community centres, healthcare facilities, schools and universities. In 2013/14, six energy efficiency projects were supported with \$1.9 million of Crown Loans to implement projects with average annual energy savings of about 28% against the capital project costs and that result in annual savings of \$535,000. Since the scheme began in 1989, 275 projects have been supported resulting in total cumulative cost savings of \$87 million for the public sector.

# WELLINGTON REGIONAL HOSPITAL

Capital and Coast District Health Board used a Crown Loan to enable an upgrade of the building management system and associated controls, and a combination of loan and grant to enable the installation of energy efficient lighting, for the Wellington Regional Hospital. Once delivered, these projects will provide annual energy cost savings of \$340,000 and enable further improvement opportunities to be more easily identified.





CROWN LOANS	
<b>Target:</b> Allocate \$2 million of loans within the public sector, providing annual	Results 2010/11 New measure
savings of no less than 20% of the capital cost of energy efficiency projects <b>What we did:</b> \$1.918 million of funding contracted against the maximum \$2 million	2011/12 <b>\$1.92</b> million allocated
	2012/13 <b>\$1.32</b> million allocated
Result at June 2014	\$1.918 millior allocated

# EECA AWARDS

The biennial EECA Awards in May received 150 entries. This was a record and reflects the level of uptake and innovation happening in energy efficiency and renewable energy projects.



EECA Chief Executive Mike Underhill and Chair Tom Campbell with representatives of Renewable Energy Award winner the Government of Tokelau.

PART B: MEASURING THE DIFFERENCE EECA MAKES\_BUSINESS

# The NABERSNZ programme



In June 2013, EECA launched NABERSNZ, a rating system for the energy performance of commercial buildings. NABERSNZ provides building owners and tenants with an independent benchmark on how energy efficient their building is, compared to others of a similar type. This is the first step in improving energy use, which can lead to energy and maintenance cost savings, improved asset value, improved occupancy and greater tenant satisfaction.

NABERSNZ is based on the Australian NABERS scheme and is administered on EECA's behalf by the New Zealand Green Building Council.<sup>12</sup>

In the first year, the focus of the NABERSNZ programme has been on training assessors, raising market awareness of the rating and enabling owners to prepare their properties for formal NABERSNZ assessments.

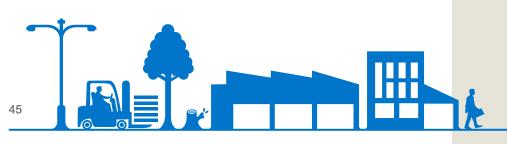
In 2013/14, 25 accredited assessors were trained, partially achieving EECA's target of 30 new assessors. However, these 25 new assessors were joined by 40 practitioners who are trained to help assessors by preparing buildings for a formal assessment and overseeing any improvements identified.



NZI Building, Auckland.

Progress on integrating NABERSNZ into the New Zealand commercial building market was very positive in 2013/14. Awareness is growing with 350 assessments completed using the online self-assessment tool, 15 Certified Ratings have been completed and an additional 20 ratings are being processed at the end of 2013/14 year. In setting the target for this, the first year of the NABERSNZ rating scheme, we underestimated the number of organisations that would wish to upgrade their buildings prior to completing a formal rating. While this meets our primary objective for the scheme, which is to improve the overall energy efficiency of commercial buildings, it does mean that the target of 50 Certified Ratings was overly optimistic for the 2013/14 year.

12 Under license from the New South Wales Office of Environment and Heritage.



NABERSNZ ASSESSORS	
Target:	Results
Train 30 accredited NABERSNZ assessors – number of accredited assessors trained annually	2010/11 New measure
The difference we made: 25 accredited assessors and 40 NABERSNZ	2011/12 New measure
practitioners were trained	2012/13 New measure
Result at June 2014	25 assessors

NABERSNZ CERTIFIED RATINGS	
Target: 50 Certified Ratings	Results
undertaken during the year. Ratings to be undertaken in accordance with the NABERSNZ	2010/11 New measure
quality control plan	2011/12 New
The difference we made: 15 Certified Ratings completed in accordance	measure
with the quality control plan, a further 20 in progress	2012/13 New measure
Result at June 2014	15 Certified Ratings

# Impact of commercial and industrial programmes

As awareness grows of the potential of energy efficiency to contribute to an organisation's bottom-line, and broader strategic priorities such as improved productivity and increased competitiveness, adoption of energy saving technology and energy management practices will occur. In 2013/14, energy management practices and the adoption of energy efficiency improvements resulted in organisations achieving annual savings of at least \$8 million, exceeding EECA's target for the year.

In 2013/14, EECA's commercial and industrial programmes collectively helped achieve the target of 4 PJ of energy savings over 10 years.

The results of engagement and the combination of projects across the commercial and industrial sectors led to cumulative energy savings of 1.8 PJ, achieving EECA's target for 2013/14.

# **CAVALIER BREMWORTH**

An energy and emission reduction project at Cavalier Bremworth's Awatoto Spinning Mill identified the opportunity to install heat recovery and to swap their old coal boilers for more efficient natural gas ones. This resulted in a huge 41% saving in annual energy costs and a 63% reduction in CO<sub>2</sub> emissions. Cavalier Bremworth has been so impressed with the savings achieved from both an economic and environmental perspective they are already initiating similar projects at another major site.



#### **TECHNOLOGY ADOPTION** Results Target: Businesses adopt energy 2010/11 saving technologies New resulting in savings of at measure least \$6 million in energy costs 2011/12 New What we did: measure Businesses adopt energy savings technologies 2012/13 saving \$8 million (per \$6 million annum) Result at June 2014 \$8 million

# ENERGY SAVINGS

Target:	Results
Total direct energy savings of 4 PJ through commercial and industrial incentive programmes	2010/11 New measure
(10-year expected life of energy savings) The difference we made:	2011/12 New measure
4 PJ direct energy savings delivered (0.4 PJ per annum)	2012/13 New measure
Result at June 2014	4 PJ

CUMULATIVE ENERGY SAVINGS		
Target:	Results	
Accumulating impact of EECA programmes of 1.8 PJ (cumulative total of incremental annual savings) <b>The difference we made:</b> 1.8 PJ cumulative impact	2010/11 New measure	
	2011/12 New measure	
	2012/13 New measure	
Result at June 2014	1.8 PJ	

# **Impact 6:** Improved efficiency of business products

The MEPS and labelling programme targets both consumer products and those used in the commercial and industrial business sectors, such as refrigerated

display and storage cabinets, chillers and electric motors. This business product-specific work is funded through the electricity levy.

# **Business products**

To date, product standards in the business sector have resulted in 5.5 PJ of energy savings worth \$145 million. In 2013/14, products in the business sector resulted in 1.4 PJ of energy savings in 2013/14.13



Refrigerated display cabinets subject to MEPS.

13 Annual savings for all business products sold under the programme to date and assumed to still be operating

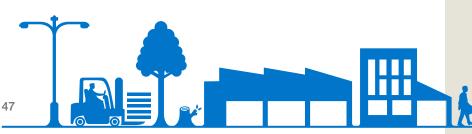
#### **BUSINESS PRODUCTS** Target: Maintain and review 2010/11 regulated product classes. Achieved Advance products and product classes through the stages of regulation 2011/12 where appropriate Achieved What we did: Refrigerated display

2012/13 cabinets, data centres, Achieved electric motors Result at June 2014 Achieved

#### ENERGY SAVINGS FROM **BUSINESS PRODUCTS**

Target:	Results
Energy savings of 0.6 PJ attributed to product standards in the business sector (reported programme savings for	2010/11 New measure
the 12 months to March 2014) <sup>14</sup>	2011/12 New measure
The difference we made:	
1.4 PJ energy savings attributed product standards in the business sector	2012/13 New measure
Result at June 2014	1.4 PJ

14 The 0.6 PJ for business products was set using a calculation method that has since been superseded. Using the new methodology, the target would be 1.4 PJ which was achieved.



# Impact 7: Greater use of renewable resources

Alongside promoting energy efficiency improvements, EECA also has a role to play in promoting the greater use of renewable resources. Renewable energy avoids CO<sub>2</sub> emissions and offers businesses greater sustainability, often improving international competitiveness as a result.

In the business sector, the greatest potential for increasing the use of renewable resources is in industrial process heat. Approximately 30% of New Zealand's energy use is from process heat, with 60% of this from non-renewable sources such as coal. The Christchurch rebuild also presents a unique opportunity to create a resilient, innovative and renewable local energy system. A project to investigate a district energy system has been established in the city and is now being led by a partnership group -Christchurch City Holdings, Canterbury District Health Board, Christchurch City Council and the CERA, with ongoing support from EECA.

# **Fuel switching**

Industries using process heat can often switch from non-renewable energy sources such as coal to renewable energy sources such as wood energy and geothermal heat. EECA promotes switching to renewable sources and funds studies to demonstrate the feasibility of this.

In 2013/14, EECA's target was for 1 PJ of heat energy to be switched from non-renewable to renewable. While we didn't achieve the full extent of our target, with 0.6 PJ switched to renewable fuels, an additional three feasibility studies have been contracted which have the potential to switch another 0.9 PJ in future years.

A number of regions in New Zealand are particularly well suited to fuel switching because of the availability of renewable energy resources. Southland is one of these areas. In 2013/14, the Government announced that EECA will work with the region to create a regional renewable heat initiative. Developing this initiative was a focus for EECA during the year as it will help meet the Government's objectives of improving productivity and reducing  $CO_2$  emissions.

#### BUSINESS RENEWABLE FUEL SWITCHING

Target:	Results
Renewable energy - fuel switching from non-renewable fuels to renewable options measured at 1 PJ (based	2010/11 New measure
on a 10-year expected life)	2011/12
The difference we made: 0.6 PJ fuel switching across three projects. Three feasibility studies	New measure
contracted with the future fuel switching potential of 0.9 PJ	2012/13 <b>0.94</b> P.
Result at June 2014	0.6 PJ

# Working with industry

The Bioenergy Association of New Zealand (BANZ) has been working to develop the wood energy market for a number of years. In 2013/14, EECA and BANZ agreed a work plan to deliver information and training support to further develop the industry's capability.

BANZ is supported in its delivery of information by the Wood Energy Knowledge Centre on EECA's Business website which provides information and web tools to help businesses realise the economic potential of using wood as a sustainable and low carbon fuel source.



# Supporting marine energy

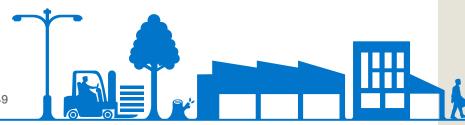
As a country surrounded by water, New Zealand has world-class marine energy resources (both wave and tidal flow). However, the technology for utilising these resources is still essentially in the research and development phase around the world. The Marine Energy Deployment Fund was set up in 2007 to investigate innovative and emerging technologies in this area. Experience through the fund helped increase the knowledge of developing marine energy in New Zealand. The projects identified challenges, through experience, which led to the termination of the Marine Energy Deployment Fund in 2013/14.

#### WORKING WITH INDUSTRY

Target:	Results
Building capability at BANZ to allow the delivery of services to the value of \$100.000	2010/11 New measure
What we did: EECA contracted with BANZ allocating \$100,000	2011/12 New measure
for delivering industry development initiatives	2012/13 New measure
Result at June 2014	\$100,000 allocated to BANZ

## MARINE ENERGY FUND

Target:	Results
Co-investment arrangements are consistent with the basic principles articulated by	2010/11 New measure
the Controller and Auditor General	2011/12 Achieved
What we did: All contracts terminated	2012/13 Achieved
Programme terminated	N/A



# Business programmes – funding and costs

The Statement of Intent budget for the business programme also includes the costs of the transport programme. The table includes all costs associated with the business and transport programmes.

	Budget 2014 \$000	Actual 2014 \$000	Actual 2013 \$000
Revenue	21,355	20,598	22,319
Expenditure	23,855	17,677	19,621
Net surplus/(deficit)	(2,500)	2,921	2,698
Surplus/(deficit) related to financial and industry support	(2,500)	2,123	1,942
Surplus/(deficit) related to financial and industry support	-	798	756
	(2,500)	2,921	2,698

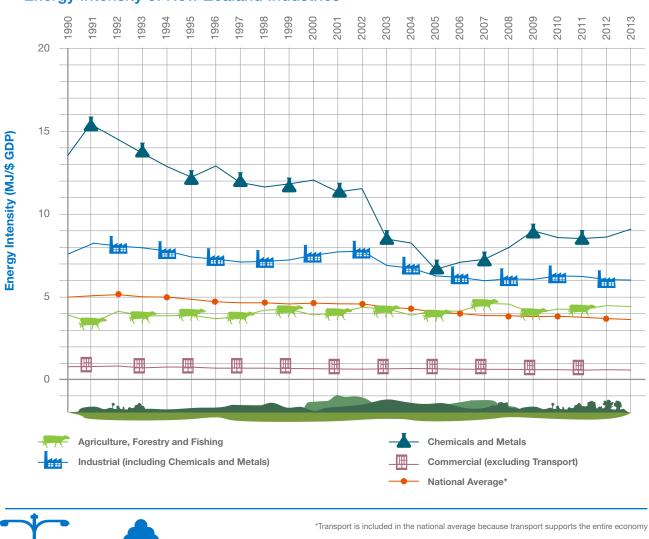
The reduction in revenue is primarily because the Marine Fund allocation, \$558,000, was not accessed due to the termination of the fund and contracts. The majority of the surplus relates to funding contractually committed to financial and industry support initiatives that will be spent in future periods.

The lower level of expenditure is related to the new engagement model that was trialled as part of the large energy user pilot which had a reduced reliance on co-funding one-off projects. EECA has worked with businesses to establish long-term energy management journeys with commitments tied to performance milestones over a two to five-year period. This has resulted in budgeted funds being committed to out-years rather than the current year.



# Progress towards improved business productivity, creating lower emissions businesses

The combination of EECA's work to improve energy awareness, improve industrial and commercial energy efficiency, improve the efficiency of business products and encourage greater use of renewable resources has resulted in continued progress towards the long-term outcome of improved business productivity and lower emissions businesses. Improved business productivity is driven by improvements in energy intensity. Data from MBIE indicate New Zealand's business sector (excluding transport) energy intensity has improved by about 1.4% per annum between 1990 and 2013. The graph below shows energy intensity of New Zealand industries since 1990.



# **Energy Intensity of New Zealand Industries**

Energy intensity is influenced by the make-up of our industries, improvements in energy efficiency and changes in behaviour. The main reason for the improvements is because of the growth in the commercial sector which is much less energy intensive than the industrial sector. EECA's focus is to make a difference in improving efficiency and changing behaviour in the commercial and industrial sectors and there is still work to do, particularly in energy intensive industries. Comparison with an International Energy Agency (IEA) Market Report in 2013 showed during the period 1990-2010 New Zealand's average industrial efficiency improving at a lower rate than most of the other 20 IEA member countries. This is a key reason for the change in focus for our business programme as outlined in the Annual Report.

To make a real difference to business productivity, we need to increase awareness of the contribution energy efficiency can make to it. Our information campaigns have lifted awareness of EECA amongst business to 39%. Research from IPSOS Consultants shows 31% of these businesses are willing to take action to improve energy efficiency and therefore business productivity.

In 2013/14, EECA helped businesses in the commercial and industrial sectors adopt energy savings technologies that will achieve combined annual savings of at least \$8 million per annum – a clear productivity benefit. These programmes will collectively achieve direct energy savings of 4 PJ over 10 years. Since 2006, EECA's programmes have resulted in 1,497 GWh of electricity efficiency savings. This is worth \$872 million to the economy. New Zealand's energy-related CO<sub>2</sub> emissions are reported by MBIE. The most recent data show that CO<sub>2</sub> emissions from the business sector (excluding transport) have increased at 0.5% per annum since 1990. Emissions in the business sector are around 10.5 million tonnes per annum and the potential to reduce emissions is high, particularly in the industrial sector where there is the greatest opportunity for increased use of energy efficient technologies and for switching to renewable fuels. The best measure for greater use of renewable energy by businesses is from MBIE data which show that in 2013, about 64 PJ of renewable energy was used for direct-use, mostly from woody biomass and geothermal for heating in commercial and industrial businesses. This was an improvement on the 58 PJ of renewable energy used for direct-use in 2009.

Greater use of renewable energy by businesses has a direct impact on lowering  $CO_2$  emissions. EECA encourages the use of renewable energy sources, such as biomass or geothermal heat on-site for business heating, fuel and electricity needs. The economics and performance of many technologies are established. These options are particularly relevant for agricultural, horticultural and primary processing industries where local materials – often waste products – are available. With better access to information, capability and capital, firms can realise these opportunities.

# Transport

Transport accounts for almost 40% of New Zealand's energy use – more than 200 PJ per annum. With almost 100% of vehicles currently fossil-fuelled, the sector is responsible for more than 50% of energy-related  $CO_2$  emissions (and about 20% of New Zealand's total).

Energy use in the transport sector is dominated by road transport which is more than 85% of the overall transport energy use. The light vehicle fleet (the cars we drive) accounts for more than half of transport energy use. Trucks and heavy commercial vehicles account for about a third of transport energy.

The Statement of Intent outcome for the transport sector is for better passenger transport choices and improved business productivity creating lower emissions businesses. It supports the NZEECS objective of a more energy efficient transport system, with a greater diversity of fuels and alternative energy technologies.

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We have divided our overall outcome for the transport sector into two impact areas:

- 1. Improved light transport efficiency (Impact 8)
- 2. Improved heavy transport efficiency (Impact 9).

To achieve these impacts, the transport programmes focus on the areas in which EECA can bring a unique contribution to transport energy efficiency. These areas are:

- > the vehicles we drive
- > how we drive them
- what else we can do to make driving vehicles more efficient (including fuel choices).

: 11

# Impact 8: Improved light transport efficiency

Our light vehicle fleet is characterised by old, inefficient vehicles. New Zealanders typically keep older cars on the road longer than drivers overseas. This means that, even with improvements in vehicle technology, it takes a long time for our fleet to turn over sufficiently to make an impact on average fuel consumption. As with the residential information programmes and appliance labelling, we believe that, when armed with good information, New Zealanders will make a better choice of vehicle. Our transport programmes encourage better, more energy efficient choices at the car-buying stage, when purchasing tyres and when driving on the road.

In 2013/14, our main focus in the light vehicle space was on influencing the cars New Zealanders choose to drive.

# **Vehicle Fuel Economy Labels**



Vehicle Fuel Economy Labels (VFEL) give consumers easy to understand information about the fuel-related costs of running a vehicle (\$ per annum fuel costs and litres/100 kilometres) at point of sale. Consumers are also able to compare the fuel efficiency of vehicles online, enabling them to take the ongoing fuel costs of a car into account when choosing between makes and models.

Since 2007, VFEL have been compulsory on all vehicles for sale by traders in New Zealand where the fuel economy information is available. But in order for the VFEL to be effective, consumers must be aware of the label and what it means in order for it to influence their buying decision.

In 2013/14, EECA used an information campaign to increase consumer awareness of the label over two periods of the year – October to November and February to April. We set ourselves an ambitious target of 75% of car buyers being aware of the VFEL. This was a new campaign, and we partially achieved this target with 62% of buyers aware of the VFEL.

# 

#### VFEL AWARENESS Results **Target:** 75% of car buyers 2010/11 aware of the VEEL New measure The difference we made: 62% of car buyers aware 2011/12 New measure 2012/13 New measure Result at June 2014 62%



While awareness wasn't quite as high as we hoped, the level of influence of the VFEL was ahead of target with 73% of car buyers who were aware of the VFEL being influenced by it at the time of purchase. This shows that, when armed with good information, consumers will make better buying decisions.

# Vehicle Fuel Economy Promotional Badge



As consumer awareness of the label increases, and it influences their buying decisions, we expect that car dealers will respond to market demand by using the information in their own advertising. EECA has worked with the vehicle industry to offer a simplified Vehicle Fuel Economy Promotional Badge which can be used to convey a vehicle's fuel efficiency at a glance.

Already, 23% of the top 30 light vehicle brand distributors are using the promotional badge in marketing materials and promotions, exceeding our target of 10%.



An example of how vehicle distributors are using the badge in their advertising.

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#### **VFEL INFLUENCE** Results Target: 60% of car buyers aware 2010/11 of the label are influenced New by the VFEL at time of measure purchase 2011/12 The difference we made: New 73% of recent car buvers measure aware of the label were influenced by it at the time 2012/13 of purchase New measure Result at June 2014 73%

# FUEL ECONOMY PROMOTIONAL BADGE

Target:	Results
10% of the top 30 light vehicle brand distributors use the label to promote vehicle fuel efficiency information when	2010/11 New measure
advertising light vehicles What we did: 23% of the top 30 distributors (seven out of	2011/12 New measure
30 distributors) used the fuel economy promotional badge in marketing materials and promotions	2012/13 New measure
Result at June 2014	23%

# Impact 9: Improved heavy transport efficiency

Even though the heavy vehicle fleet overall consumes a smaller percentage of fuel than private vehicles, per vehicle or driver, the proportion of fuel consumed is more significant. This means the potential to influence fuel use, reducing our reliance on fossil fuels and reducing  $CO_2$  emissions is greater here than in any other part of the transport sector.

EECA's heavy transport efficiency programme offers heavy vehicle fleet operators the opportunity to improve their systems and processes in order to understand how to reduce costs they previously thought were fixed. Alongside this significant cost saving comes improved safety, profitability and competitiveness.

The focus of the heavy vehicle programme is on working alongside fleets to put a fuel management programme in place. The fuel savings potential is around 10% per fleet, which can be realised through driver behaviour change and better management systems and processes to embed long-term savings.

# Fuel efficiency/management advisors

The heavy vehicle programme was established in 2012 and EECA has started with the basics in order to build the sector's capability – ensuring there are well-trained and qualified advisors to work alongside fleet operators to put a fuel efficiency programme in place. In 2013/14, we provided training to 19 fuel efficiency/management advisors, taking the total number of advisors in New Zealand to 35.

As with EECA's other programmes, partnership with industry is vital to the success of this programme. With advisors trained, and by working alongside industry bodies, we have demonstrated the value of a fuel efficiency programme to New Zealand's largest heavy vehicle fleets.



"The Road Transport Forum and its member associations applaud EECA's initiatives to promote the more efficient use of transport fuels. In particular industry is pleased to be an integral

part of EECA's Fuel Efficiency Workshop Programme by hosting each workshop and supporting the mentoring advice provided to all course participants by Fuel Management Advisors. This important work can improve the productivity of road transport while reducing our carbon footprint."

Ken Shirley, Chief Executive of the Road Transport Forum



FUEL EFFICIENCY ADVISORS	
Target:	Results
28 fuel efficiency advisors trained and available to perform assessments (cumulative to date)	2010/11 New measure
What we did: 35 fuel efficiency advisors trained	2011/12 New measure
	2012/13 <b>16</b>
Result at June 2014	35



Hon Simon Bridges, Minister of Energy and Resources, visited Tranzliquid in March 2014 to get their view on EECA's Heavy Vehicle Fuel Efficiency Programme.

# Heavy vehicle fleet reviews

We know that, even with awareness of the benefits of a fuel efficiency programme, it takes time to get heavy vehicle fleets committed to the programme as we are competing with the many other priorities these businesses are dealing with on a day-to-day basis. Our target in 2013/14 was for 12% (based on total fuel consumption by the sector) of the total heavy vehicle fleet to have undergone a review under the programme. This target has been achieved, with 74 fleets using 140 million litres of fuel being reviewed by the programme – representing 14% of the total annual fuel consumption of the heavy vehicle fleet.



#### HEAVY TRANSPORT FLEET REVIEWS

Target:	Results
12% of the total heavy transport fleet has undergone a review under the programme – based	2010/11 New measure
on percentage fuel usage What we did: 14% of the heavy	2011/12 New measure
transport fleet has undergone a fleet review	2012/13 <b>10%</b>
Result at June 2014	14%

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# Fleet management plans and driver training

In 2013/14, our target was for 5% of the heavy vehicle fleet (based on total fuel consumption by the sector) to have completed a fleet management plan and driver training. This target was not achieved, with 4% of the fleet (42 fleets using 40 million litres per annum) having these in place. However, given the number of fleet reviews completed and the strategy in place, we expect to achieve 10% in 2014/15.

# Energy savings from the heavy vehicle programme

Our expectation was that this programme would deliver 2 PJ of total energy savings through transport incentive programmes (10-year expected life of energy savings) in 2013/14. But, with the longer lead times needed by companies to take effect, these savings have not been realised yet. While the 0.7 PJ of energy savings from 12 fleet operators in the year to date did not achieve our target, this is equivalent to 1.7 million litres of diesel per annum. The fleet reviews undertaken have us on track for achieving our long-term outcomes – EECA aims to influence 30% of businesses with significant transport fuel use to improve fuel efficiency.

The focus now is on realising this potential through more direct engagement with fleet operators to enable longer-term change. We have put measures in place to ensure there is commitment from a fleet at a senior level before admission into the programme, and more feedback and monitoring will occur to ensure support is given when it is needed.

In 2014/15, we will be working with industry to embed the programme into 'business as usual' for these fleet operators. We are confident that opportunities already identified for savings will be realised in the next financial year. In 2014/15, there will also be a targeted programme for smaller fleets that may not qualify for the full fuel efficiency programme. EECA will be working with industry associations to deliver workshops specifically for these businesses.

# Transport programmes – funding and costs

The Statement of Intent budget included the costs of the transport programme within the business programme costs. Therefore the transport programme funding and costs for 2013/14 are included in the business section of this report.

#### HEAVY TRANSPORT FLEET ACTION PLANS

Target:	Results
5% of the heavy fleet (by fuel usage) has a fleet management plan and undertaken driver training	2010/11 New measure
what we did: 4% of the heavy fleet developed a fleet management plan and undertook driver training	2011/12 New measure
	2012/13 New measure
Result at June 2014	4%

#### TRANSPORT ENERGY SAVINGS Results Target: Deliver 2 PJ of total 2010/11 energy savings through New transport incentive measure programmes (10-year expected life of energy 2011/12 savings)14 New measure The difference we made: 0.7 PJ of energy savings 2012/13 0.02 PJ Result at June 2014 0.7 P

PART

14 Based on a 10-year expected life.





# Progress towards better passenger and business transport choices

The combination of EECA's work to improve light and heavy transport efficiency has resulted in continued progress towards the outcome of better passenger and business transport choices – which leads to efficient, safe and lower CO<sub>2</sub> transport.

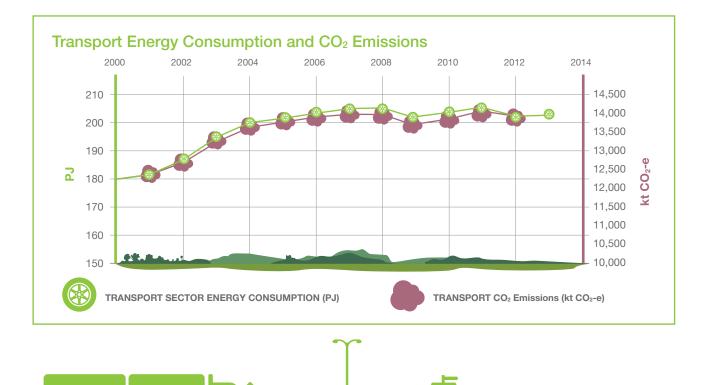
EECA's market research conducted over five years shows that fuel consumption continues to be the third most important consideration, behind price and reliability, when consumers buy cars. EECA's Vehicle Fuel Economy Label provides information to consumers about fuel efficiency at point of sale. The Ministry of Transport has reported the second year of a notable improvement in observed overall light petrol fleet economy to 9.83 litres/100 km in 2013, down from 9.91 litres/100 km in 2012 and 10.10 litres/100 km in 2011.<sup>15</sup>

Alongside the vehicles New Zealanders drive, how they drive has an impact on fuel efficiency and safety. Research commissioned jointly by EECA and the AA in 2011 reviewed international literature which shows that fuel efficient driving is also safer driving.<sup>16</sup> Improved safety can be measured by reduced incidents of speeding and harsh cornering, which both contribute to loss of control crashes. Telematics introduced into vehicles through the EECA programme record changes in patterns of speeding and harsh cornering. These data will be able to be reported next year.

It is this combination of fuel efficiency and safety improvements that is the basis for the driver behaviour focus of EECA's Heavy Vehicle Fuel Efficiency programme.

Prior to 2006, transport was the fastest growing energyconsuming sector. Since then, transport sector energy use has remained relatively steady from 203 PJ per annum in 2006 to 202 PJ per annum in 2013.<sup>17</sup> CO<sub>2</sub> emissions from transport have also remained steady in line with fuel use. The graph below shows the energy consumption and CO<sub>2</sub> emissions of the transport sector since 2000.

- 15 The New Zealand Vehicle Fleet Annual Fleet Statistics, Ministry of Transport.
- www.eeca.govt.nz/sites/all/files/ternz-eco-driving-report-june-2011.pdf
   Energy in New Zealand 2014 Ministry of Business, Innovation and Employment, July 2014.



The ultimate measure of success is improvements in energy intensity in transport. This is measured separately for the two different transport tasks – moving people and moving freight. For moving people, energy intensity is measured as PJ per billion passenger kilometres and for moving freight it is measured as PJ per billion freight tonne kilometres. These data are produced by MBIE every few years and updated figures are expected towards the end of 2014. The graph below shows the historic change in energy intensity in the transport sector.

Analysis undertaken by MBIE indicates that passenger transport energy intensity has improved on average by 0.3% per annum since 1990. MBIE estimates that energy efficiency has reduced passenger transport energy use by 3.8 PJ since 1990. Freight transport energy intensity has improved by about 0.5% per annum and MBIE estimates that energy efficiency has reduced freight transport energy use by 7.3 PJ since 1990.

While energy consumption and  $CO_2$  emissions trends remain steady, the potential for improvement is large. EECA will be looking for further opportunities to influence transport as there is much work to be done to progress towards the outcome of better passenger and business transport choices leading to efficient, safe and lower  $CO_2$  transport.



# **Transport Energy Intensities**

# Electricity Efficiency Levy-funded Programmes

Some of EECA's programmes are funded in part by the appropriation 'Electricity Efficiency Output Class', which is levied by the Crown through the electricity levy on electricity use in order to fund electricity efficiency programmes.

EECA receives an allocation of funding from the electricity levy to drive electricity efficiency savings in the business and residential sectors. In 2013/14, electricity levy-funded projects were focused on lighting, consumer products and electricity efficiency improvements in commercial and industrial sectors. We achieved electricity savings of 327 GWh (per annum) through these projects. We also achieved the target for an annual reduction in peak electricity demand through electricity efficiency projects.

As at 30 June 2014, results delivered from levy-funded programmes since 2006 have resulted in:

- > cumulative savings of 1,497 GWh per annum
- > peak demand reduction of 627 MW
- \$872 million worth of savings at present value (\$191 million in 2013/14)

achieved at a cost to the levy of 0.6 c/kWh in 2013/14.

#### ELECTRICITY SAVINGS

Target:	Results
Energy savings from electricity levy-funded activities total 167 GWh per annum	2010/11 New measure
<b>The difference we made:</b> 327 GWh per annum energy savings	2011/12 <b>257</b> GWh
	2012/13 <b>212</b> GWh
Result at June 2014	327 GWh

#### PEAK DEMAND REDUCTION

Target:	Results		
Annual savings of 73 MW peak demand from levy-funded electricity efficiency programmes	2010/11 New measure		
The difference we made: 96 MW reduction in peak demand	2011/12 <b>49 м</b> w		
domana	2012/13 <b>92</b> mw		
Result at June 2014	96 MW		

The table below summarises how EECA has used, or committed to use, the Electricity Efficiency appropriation and the energy efficiency savings as a result of these programmes. In the 2013/14 year, EECA's levy-funded activities reached \$17.3 million funded by the 2013/14 electricity levy funding of \$13 million and the electricity levy funding received in prior years to cover commitments of \$4.3 million. EECA's operational appropriation has been applied to cover additional electricity efficiency project commitments of \$2.3 million.

Delivery area	Allocation		Delivery area Allocation		Exper	diture
	Commitments at 30/06/13	2013/14 allocation	Work completed	Work committed		
Commercial buildings	\$2.2 m	\$5.9 m	\$5.5 m	\$2.6 m		
Industrial motors and motorised systems	\$1.2 m	\$2.4 m	\$2.4 m	\$1.2 m		
Efficient lighting and products	\$0.9 m	\$4.7 m	\$5.6 m	-		
Total	\$4.3 m	\$13.0 m	\$13.5 m	\$3.8 m		

Due to the multi-year nature of many of the programmes – with large projects spanning two to three years with staged payments – a number of projects will have open commitments for some time in out-years. Work committed represents contracted expenditure for eligible electricity efficiency programmes to be delivered in future years.

Programme	Description
Commercial buildings (heating, ventilation, air conditioning and refrigeration systems)	<ul> <li>Reducing the barriers to energy efficiency improvements in commercial buildings and businesses by:</li> <li>building the capacity of energy specialist technical service provider industries to identify and implement efficiency improvements</li> <li>providing information and financial incentives to the commercial building sector to uptake economic opportunities.</li> </ul>
Industrial motors and motorised systems	<ul> <li>Reducing barriers to energy efficiency improvements in industry by:</li> <li>building capability in motor repair and technical service provider industries</li> <li>providing businesses with information and training to pursue management policy and system improvements.</li> </ul>
Efficient lighting and products	<ul> <li>Reducing barriers to the installation of efficient lighting through:</li> <li>standards and labelling for residential products</li> <li>training programmes for lighting engineers, electricians and retail staff</li> <li>providing information and education, and financial incentives to businesses and householders</li> <li>providing information through the RightLight residential lighting campaign.</li> <li>Reducing barriers to the procurement of efficient products through information campaigns and standards and labelling.</li> </ul>



# Part C

# **EECA's Financial Performance**

# Organisation and Capability

# **Compliance and reporting**

# Permission to act despite being an interested member

During the 2013/14 financial year, no member was granted permission to act despite being an interested member.

# Direction given by the Minister of Energy and Resources

The Minister of Energy and Resources did not give any written direction under any enactment to EECA during the 2013/14 financial year.

# Section 19 of the Crown Entities Act 2004

EECA has not performed any acts in breach of section 19 of the Crown Entities Act 2004.

### **Risk and compliance programme**

EECA has a risk management framework which sets out strategic and operational risks for the organisation. EECA also has a legislative compliance programme.

# Auditors

The Board has continued its contract with Deloitte as its internal audit agent. In 2013/14, Deloitte provided audit advice and reviews on the Grant Enterprise Management (GEM) System post implementation, the NABERSNZ programme development, and website and IT security.

The statutory external audit is performed by Audit New Zealand on behalf of the Auditor-General under the Public Audit Act 2001. The results of the audit are reported to the Board and the Minister of Energy and Resources, and the audit report on the accounts and Statement of Service Performance is included in this document.

# Reporting

The Board reports on a quarterly basis on all its projects to the Minister of Energy and Resources. MBIE, as EECA's monitoring agency, also provided advice to the Minister of Energy and Resources on EECA's performance throughout the year. The Board has separately assessed EECA management's output delivery over the year.

#### Relationship with other government agencies

MBIE monitors EECA's performance under the Crown Entities Act 2004.

MBIE is the government policy advisor for the energy sector and provides advice to the Minister of Energy and Resources on energy, including energy efficiency and renewable energy.

EECA and MBIE have a Monitoring Agreement that sets out how the two agencies will work together.

# Our people

# Conduct

EECA has a code of conduct that outlines the standard of behaviour required, and expects staff to perform their duties in accordance with this code.

EECA also has a protected disclosures policy and register of interests for both Board members and staff. During the financial year ended 30 June 2014, no protected disclosures were received.

# Workforce profile

As at 30 June 2014, EECA had a workforce of 81 full-time equivalent employees. For the total workforce, the gender split by headcount was female 41% and male 59%. For the people managers, including senior leadership team, the split was female 27% and male 73%. Our Board composition is 50% male and 50% female.

Age profile				
Under 30	7%			
30–39 years	24%			
40-49 years	31%			
50–59 years	24%			
60 and over	14%			

Ethnicity of those reported				
NZ European	64%			
Māori	7%			
Pacific	0%			
Asian	8%			
Other	10%			

# Good employer obligations

EECA values the importance of being a good employer, and under EECA's equal employee opportunities practices all staff members are treated on merit.

EECA's activities against the seven key elements of being a good employer support EECA's wider business strategy – ensuring that EECA has access to the right capability at the right time and in the right places to support the delivery of our strategic objectives. These practices are summarised in the table below.

Element	EECA activity
Leadership, accountability and culture	<ul> <li>&gt; measurement of staff engagement and satisfaction via the EECA Annual Workplace Survey, benchmarking the organisation against the IBM Kenexa Best Workplaces Survey and utilising staff consultation to identify areas for improvement</li> <li>&gt; staff reference groups to contribute to the design and implementation of the new organisational operating model and structure</li> <li>&gt; regular review of HR policies and processes</li> </ul>
Recruitment, selection and induction	<ul> <li>&gt; robust recruitment and selection processes</li> <li>&gt; continual improvement process in regards to the induction programme to support new staff into EECA</li> </ul>
Employee development, promotion and exit	<ul> <li>continued enhancements to our training and development strategy in order to educate, upskill and build the capability of our staff</li> </ul>
Flexibility and work design	<ul> <li>&gt; strengthening our processes for performance management and coaching to ensure individual contributions are aligned to organisational objectives</li> <li>&gt; flexible working arrangement policies and practices to both attract and retain staff, and support staff in managing personal development and family responsibilities</li> </ul>
Remuneration, recognition and conditions	> annual EECA awards that provide recognition to staff who have made significant contributions to EECA during the year
Harassment and bullying prevention	> training on resilience and prevention of bullying and harassment
Safe and healthy environment	<ul> <li>&gt; committed to maintaining organisational health, including a number of wellness initiatives such as access to flu vaccinations, participation in corporate sports events</li> <li>&gt; defibrillators for the Auckland and Wellington offices</li> <li>&gt; EECA-wide first aid training and refresher training</li> </ul>

# Financial Statements

# Statement of comprehensive income for the year ended 30 June 2014

	Notes	Actual 2014 \$000	Budget 2014 \$000	Actual 2013 \$000
Revenue				
Crown revenue		82,526	87,434	116,899
Other revenue	2	459	800	267
Interest received		906	500	869
Total revenue		83,891	88,734	118,035
Expenditure				
Personnel		10,618	10,500	10,721
Financial & industry support		56,371	63,339	88,123
Other operating expenses	3	14,299	18,169	15,988
Depreciation	4	157	225	218
Amortisation	5	688	501	498
Total expenditure		82,133	92,734	115,548
Net surplus/(deficit)		1,758	(4,000)	2,487
Other comprehensive income		-	-	-
Total comprehensive income*		1,758	(4,000)	2,487
* All attributable to the owners of EECA				

\* All attributable to the owners of EECA

EECA is required to report on the budget as disclosed in the 2013/14 to 2015/16 Statement of Intent. See note 26 – Explanation of significant variances against budget.

# Statement of changes in equity for the year ended 30 June 2014

	Notes	Actual 2014 \$000	Budget 2014 \$000	Actual 2013 \$000
Opening equity		13,265	9,441	10,778
Net surplus/(deficit)		1,758	(4,000)	2,487
Total comprehensive income for the period		1,758	(4,000)	2,487
Closing equity	6	15,023	5,441	13,265

# Statement of financial position as at 30 June 2014

	Notes	Actual 2014 \$000	Budget 2014 \$000	Actual 2013 \$000
Equity	6	15,023	5,441	13,265
Represented by:				
Assets				
Current assets				
Cash and cash equivalents	7	13,571	7,520	11,629
Other financial assets	7	10,000	5,000	9,000
Trade and other receivables	8	983	1,000	713
Debtors – Crown		278	-	5,128
Prepayments		157	100	165
Crown loan debtors	9	1,664	1,800	1,734
Total current assets		26,653	15,420	28,369
Non-current assets				
Crown loan debtors	9	3,024	3,300	2,884
Property, plant and equipment	4	113	119	248
Intangibles	5	478	175	1,104
Total non-current assets		3,615	3,594	4,236
Total assets		30,268	19,014	32,605
Liabilities				
Current liabilities				
Trade and other payables	11	8,827	7,400	12,546
Creditors – Crown		-	-	696
Income in advance		63	_	-
Employee entitlements	12	1,019	860	1,142
Crown loan creditors	10	1,664	1,800	1,734
Other provisions	13	526	_	-
Total current liabilities		12,099	10,060	16,118
Non-current liabilities				
Crown loan creditors	10	3,024	3,300	2,884
Employee entitlements	12	122	110	139
Other provisions	13		103	199
Total non-current liabilities		3,146	3,513	3,222
Total liabilities		15,245	13,573	19,340
Net assets		15,023	5,441	13,265

# Statement of cash flows for the year ended 30 June 2014

	Notes	Actual 2014 \$000	Budget 2014 \$000	Actual 2013 \$000
Cash flows from operating activities				
Cash was provided from:				
Supply of outputs to the Crown – operational expenses		24,032	32,904	28,864
Supply of outputs to the Crown – financial & industry support		63,344	54,530	92,495
Supply of outputs to external parties		51	800	445
Interest received		968	500	921
Net Goods and Services Tax		89	-	74
		88,484	88,734	122,799
Cash was applied to:				
Payments to employees		(10,455)	(10,543)	(10,530)
Payments to suppliers		(14,648)	(29,076)	(16,716)
Financial and industry support		(60,356)	(54,530)	(91,484)
		(85,459)	(94,149)	(118,730)
Net cash flows from operating activities	14	3,025	(5,415)	4,069
Cash flows from investing activities				
Cash was provided from:				
Receipts from other financial assets		55,000	70,000	21,000
Receipts from sale of assets		-	-	5
		55,000	70,000	21,005
Cash was applied to:				
Purchase of property, plant and equipment		(21)	(100)	(8)
Purchase of intangible assets		(62)	(130)	(743)
Acquisition of other financial assets		(56,000)	(70,000)	(25,000)
		(56,083)	(70,230)	(25,751)
Net cash flows from investing activities		(1,083)	(230)	(4,746)

continued...

# Statement of cash flows for the year ended 30 June 2014 continued

	Notes	Actual 2014 \$000	Budget 2014 \$000	Actual 2013 \$000
Cash flows from financing activities				
Cash was provided from:				
Receipts from the Crown		1,918	2,000	1,329
Loan repayments received		1,797	2,000	1,893
		3,715	4,000	3,222
Cash was applied to:				
Loans provided		(1,918)	(2,000)	(1,329)
Payments to the Crown		(1,797)	(2,000)	(1,893)
		(3,715)	(4,000)	(3,222)
Net cash flows from financing activities		-	-	-
Net increase/(decrease) in cash held		1,942	(5,645)	(677)
Opening cash balances		11,629	13,165	12,306
Closing cash balances	_	13,571	7,520	11,629
Represented by:				
Cash and cash equivalents		13,571	2,520	2,629
Short-term bank deposits		-	5,000	9,000
Closing cash and cash equivalents		13,571	7,520	11,629

The net GST component of operating activities reflects the net GST paid and received from/to the Inland Revenue Department. The net GST component has been presented on a net basis, as the gross amounts do not provide meaningful information for financial statement purposes.

### Notes to the financial statements

## 1. Statement of financial position as at 30 June 2014

### **Reporting entity**

The Energy Efficiency and Conservation Authority (EECA) is a Crown entity, established under the Energy Efficiency and Conservation Act 2000. EECA implements the Government's priorities in the areas of energy efficiency, energy conservation and renewable energy.

EECA is a public benefit entity for financial reporting purposes of New Zealand Equivalents to International Financial Reporting Standards (NZ IFRS PBE).

These financial statements have been prepared in accordance with section 154 of the Crown Entities Act 2004.

The financial statements are for the year ended 30 June 2014 and were approved by the Board on 29 July 2014.

#### **Basis of preparation**

### 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 comply with NZ IFRS PBE.

The accounting policies set out below have been applied in preparing the financial statements for the year ended 30 June 2014.

#### Measurement base

The financial statements have been prepared on an historical cost basis. Cost is based on the fair value of the consideration given in exchange for assets.

Accounting policies are selected and applied in a manner which ensures that the resulting financial information satisfies the concepts of relevance and reliability, thereby ensuring that the substance of the underlying transactions or other events is reported.

### Functional and presentation currency

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

### Significant accounting policies

The following particular accounting policies, which materially affect the measurement of the Statement of comprehensive income and Statement of financial position, have been applied:

#### **Budget figures**

The budget figures are those detailed in the Statement of Intent 2014/16. The budget figures have been prepared in accordance with NZ GAAP and are consistent with the accounting policies adopted by the Board for the preparation of the financial statements at the time the budgets were approved.

### Revenue

#### Crown revenue

EECA is primarily funded through revenue received from the Crown, which is restricted in its use for the purpose of EECA meeting its objectives as specified in the Statement of Intent.

Revenue from the Crown is recognised as revenue when earned and is reported in the financial period to which it relates.

### Other revenue

Non-Crown revenue is recognised as revenue when it becomes receivable from the third party, unless there is an obligation to return the funds if conditions of the agreement with the third party are not met. Where there is such an obligation, the other revenue is initially treated as revenue received in advance and recognised when conditions of the agreement are satisfied.

#### Interest revenue

Interest revenue is recognised on a time proportionate basis that takes into account the effective yield on the financial asset.

#### Expenditure

### Financial and industry support

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.

### 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.

### Taxation

EECA is a public authority in terms of the Income Tax Act 2004 and consequently is exempt from income tax.

### Investments

Investments in bank deposits are initially measured at fair value plus transaction costs. After initial recognition, investments in bank deposits are measured at amortised cost using the effective interest method, subject to impairment losses if any.

### Loans

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.

### Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses.

Realised gains and losses arising from disposal of property, plant and equipment are recognised in the Statement of comprehensive income in the period in which the transaction occurs.

### Depreciation

Depreciation is charged on a straight-line basis, so as to write off the net cost of each asset over its expected useful life to its estimated residual value.

Leasehold improvements are depreciated over the period of the lease or estimated useful life, whichever is shorter, using the straight-line basis. The following estimated useful lives are used in the calculation of depreciation:

Assets	Useful life	Depreciation
Computer equipment	3 years	33.30%
Plant and equipment	2.5 to 6 years	40% to 16.67%
Furniture and fittings	6 years	16.67%

### Intangibles

Intangible assets comprise software applications which have a finite useful life and are recorded at cost less accumulated amortisation and impairment. These are amortised on a straight-line basis over their useful lives as follows:

Assets	Useful life	Amortisation
Computer	3 to 5 years	33.30% to 20%
software	5 to 5 years	33.30% 10 20%

### Impairment

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 income.

### **Operating leases**

Leases where the lessor effectively retains substantially all the risks and benefits of ownership of the leased items are classified as operating leases. Payments under these leases are recognised as an expense on a straightline basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

### **Employee entitlements**

Provision is made in respect of EECA's liability for annual leave, long service leave and retirement leave when it is probable that settlement will be required and they are capable of being measured reliably.

Provisions made in respect of employee entitlements expected to be settled within 12 months are measured at their nominal values using the remuneration rate expected to apply at the time of settlement. Provisions made in respect of employee entitlements which are not expected to be settled within 12 months are measured as the present value of the estimated future cash outflows to be made by EECA in respect of services provided by employees up to reporting date.

Sick leave is recognised to the extent that compensated absences in the coming year are expected to be greater than the sick leave entitlements earned in the coming year. The amount calculated is based on the unused sick leave entitlement that can be carried forward at balance date, to the extent that EECA anticipates it is likely to be used by staff to cover those future absences.

### **Provision for reinstatement**

The provision for reinstatement represents the amount payable to restore leased premises to the conditions required under the lease agreement(s), discounted back to balance date. The discount rate is taken to be EECA's incremental cost of borrowing, being the Government's capital charge rate.

#### **Financial instruments**

EECA is party to financial instruments as part of its normal operations. All financial instruments are recognised in the Statement of financial position and all revenues and expenses in relation to financial instruments are recognised in the Statement of comprehensive income.

#### **Financial assets**

#### Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and demand deposits and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

#### Trade receivables

Trade receivables are recorded at amortised cost less impairment.

### **Financial liabilities**

#### Payables

Trade payables and other payables are recognised when EECA becomes obliged to make future payments resulting from the purchase of goods and services.

### **Cost allocation**

EECA has derived the net cost of service for each significant activity of EECA using the cost allocation system outlined below.

### Cost allocation policy

Direct costs are charged directly to significant activities. Indirect costs are charged to significant activities on a proportional basis, using as a cost driver, the more appropriate of either the proportion of direct costs or the proportion of full-time equivalents.

### Criteria for direct and indirect costs

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

### **Revenue allocation**

Revenue received is apportioned to each of the output areas on the same basis as the cost allocation policy.

### Amendments to standards adopted early

#### Accounting standards framework

EECA is a public benefit entity for financial reporting purposes of NZ IFRS PBE. The new suite of accounting standards is applicable from the reporting period beginning 1 July 2014.

EECA's assessment of the proposed changes to the suite of accounting standards for PBEs is that there is no significant difference between the current measurement and recognition policies to those proposed.

# Standards, amendments and interpretations issued that are not yet effective and have not been adopted early

There are no standards, amendments or interpretations issued but not yet effective that have not been adopted early.

#### Critical judgements, 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. The significant estimates and assumptions are as follows.

### Property, plant and equipment

EECA establishes the useful life of property, plant and equipment at acquisition. It reviews the life and utility of this property, plant and equipment annually. In the event the life differs from those assigned or if the utility of the assets is less than assumed, the cost in the form of depreciation may be wrongly allocated to any one year.

### Provisions

### 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.

Provisions are measured at the present value of the expenditure expected to be required to settle the obligation.

### Loans

The carrying values of the loans assume that no debtor will default on any instalment due and that the discount rate used to determine the discount on origination of each loan is appropriate to the circumstances of each debtor. At balance date the carrying value of the loans was face value less unamortised discount.

### Changes in accounting policy

There have been no changes in accounting policy.

### 2. Other revenue

	2014 \$000	2013 \$000
Discount on loan (note 9)	50	98
Other revenue	409	169
Total other revenue	459	267

### 3. Other operating expenses

	2014	2013
	\$000	\$000
Fees paid to external auditors:		
Audit fees – audit of financial statements	55	53
Board members' fees	113	110
Rental and operating lease costs	818	835
Contract services	2,334	3,690
Marketing services	8,234	9,240
Discount on Ioan (note 10)	50	98
Operations	2,695	1,962
Total other operating expenses	14,299	15,988

### 4. Property, plant and equipment

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

	Plant and equipment \$000	Furniture and equipment \$000	Computer equipment \$000	Leasehold improvements \$000	Total \$000
Cost					
Balance as at 1 July 2012	229	232	495	1,044	2,000
Additions	-	-	8	-	8
Disposals	(20)	(27)	(261)	(20)	(328)
Balance at 30 June 2013	209	205	242	1,024	1,680
Balance at 1 July 2013	209	205	242	1,024	1,680
Additions	6	-	15	-	21
Disposals	-	-	-	-	-
Balance at 30 June 2014	215	205	257	1,024	1,701
Accumulated depreciation					
Balance at 1 July 2012	188	209	437	703	1,537
Depreciation expense	24	13	31	149	218
Disposals	(15)	(27)	(261)	(20)	(324)
Balance at 30 June 2013	197	195	207	832	1,431
Balance at 1 July 2013	197	195	207	832	1,431
Depreciation expense	12	8	24	113	157
Write back on disposal	-	-	-	-	-
Balance at 30 June 2014	209	203	231	945	1,588
Carrying amounts					
At 30 June 2012	41	23	58	341	463
At 30 June 2013	12	10	35	192	248
At 30 June 2014	6	2	26	79	113

### 5. Intangible assets

Movements for each class of intangible assets are as follows:

	Acquired software \$000	WIP \$000	Total \$000
Cost			
Balance as at 1 July 2012	1,555	-	1,555
Additions	684	59	743
Disposals	-	-	-
Balance at 30 June 2013	2,239	59	2,298
Balance at 1 July 2013	2,239	59	2,298
Additions	121	-	121
Disposals	-	-	-
Capitalised		(59)	(59)
Balance at 30 June 2014	2,360	-	2,360
Accumulated amortisation			
Balance at 1 July 2012	696	-	696
Amortisation expense	498	-	498
Balance at 30 June 2013	1,194	-	1,194
Balance at 1 July 2013	1,194	-	1,194
Amortisation expense	688	-	688
Balance at 30 June 2014	1,882	-	1,882
Carrying amounts			
At 30 June 2012	859	-	859
At 30 June 2013	1,045	59	1,104
At 30 June 2014	478	-	478

### 6. Equity

	2014 \$000	2013 \$000
Opening Crown equity	545	545
Closing Crown equity	545	545
Opening retained earnings	12,720	10,233
Surplus/(deficit)	1,758	2,487
Closing retained earnings	14,478	12,720
Total equity	15,023	13,265
Analysis of closing retained earnings		
Financial & industry support commitments	8,385	6,371
Retained earnings other	6,093	6,349
	14,478	12,720

A significant proportion of retained earnings is the result of revenue received that has been committed in the form of financial & industry support expenditure to be incurred in future years. Refer to accounting policy, note 1.

### **Rights attaching to equity**

The Minister of Energy and Resources, being the responsible Minister, has the power to direct the Authority by virtue of section 20 of the Energy Efficiency and Conservation Act 2000 and section 7 of the Crown Entities Act 2004. This power includes the power to direct the Authority in matters of financial policy including distribution policy.

### 7. Cash and cash equivalents and other financial assets

	2014 \$000	
	φυυί	φυυυ
Cash and cash equivalents		
Cash on hand	13,571	2,629
Short-term deposits < 90 days		9,000
Total cash and cash equivalents	13,571	11,629
Other financial assets		
Short-term deposits > 90 days	10,000	9,000
Total other financial assets	10,000	9,000
Weighted average effective interest rates:	3.74%	3.85%

### 8. Trade and other receivables

	2014 \$000	2013 \$000
Trade receivables	510	151
		151
GST receivable	473	562
Total trade and other receivables	983	713
Trade receivables-due profile: Not past due		
Past due 1–30 days	- 501	- 140
Past due 31–60 days	-	-
Past due 61–90 days	9	11
	510	151

All these amounts are net of impairment which has been assessed as \$8,529 (2013: \$10,661).

All receivables greater than 30 days in age are considered to be past due.

### 9. Crown loan debtors

	2014 \$000	2013 \$000
Face value of the loans	5,149	5,029
Discount to be amortised	(461)	(411)
Carrying amount	4,688	4,618
Short-term (< 12 months)	1,664	1,734
Long-term (> 12 months)	3,024	2,884
Carrying amount	4,688	4,618

### 10. Crown loan creditors

	2014 \$000	2013 \$000
Face value of the loans owed to the Crown	5,149	5,029
Discount to be amortised	(461)	(411)
Carrying amount	4,688	4,618
Short-term (< 12 months)	1,664	1,734
Long-term (> 12 months)	3,024	2,884
Carrying amount	4,688	4,618

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.

### 11. Trade and other payables

	2014 \$000	2013 \$000
Trade creditors	76	80
Accrued expenses-financial & industry support	6,898	10,187
Accrued expenses-other	1,729	2,152
Other tax payable	124	127
Total payables and accruals	8,827	12,546

### **12. Employee entitlements**

	2014 \$000	2013 \$000
Annual leave	549	590
Performance-related pay	106	107
Accrued wages/fees	364	445
Total current employee entitlements	1,019	1,142
Long service leave	27	40
Retirement leave	95	99
Total non-current employee entitlements	122	139
Total employee entitlements	1,141	1,281

### 13. Other provisions

	Actual \$000
Reinstatement provision	
Opening balance 1 July 2013	90
Charge for year–Wellington office	9
Closing balance 30 June 2014	99
Lease expiration	
- Auckland office (14 February 2015)	
- Wellington office (01 September 2014)	
The provision represents the estimated amount necessary to restore leased premises	

to meet the conditions required under the lease agreement(s).

The reinstatement provision has been amortised over the period which equates to the full term of the lease.

The likelihood of EECA needing to utilise this provision earlier than the full term is considered low.

Provision	for	bad	debt	
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Opening balance 1 July 2013	11
Applied Research Services Ltd (in Administration)	
Charge for the year	(2)
Closing balance 30 June 2014	9

### **Provision for audits**

Opening balance 1 July 2013	98
Charge for the year	(21)
Closing balance 30 June 2014	77
The movement within this audit provision accounts for the audits of retrofits completed under the Warm Up New Zealand: Heat Smart programme provided for last financial year. The balance of the	

Warm Up New Zealand: Heat Smart programme provided for last financial year. The balance of the current provision accounts for all audits due on retrofits completed as at 30 June 2014. This provision covers the following programmes: Warm Up New Zealand: Heat Smart, Warm Up New Zealand: Healthy Homes and Voluntary Targeted Rates.

### Provision for restructuring costs

Opening balance 1 July 2013	-
Charge for the year	341
Closing balance 30 June 2014	341

This provision represents the consultancy costs and expected redundancies as a result of the affirmed restructure.

Total other provisions	526

# 14. Reconciliation of the net surplus/(deficit) to net cash flows from operating activities

	2014 \$000	2013 \$000
Net surplus/(deficit) from the Statement of comprehensive income	1,758	2,487
Add non-cash items:		
Depreciation and amortisation	845	716
Profit on disposal of fixed assets	-	-
Total non-cash items	845	716
Add/(deduct) movements in working capital items:		
Decrease/(increase) in receivables and prepayments	4,588	4,356
(Decrease)/increase in payables and provisions	(4,088)	(3,330)
Increase/(decrease) of income in advance	63	(351)
(Decrease)/increase in employee entitlements	(141)	191
Net movement in working capital items	422	866
Net cash flows from operating activities	3,025	4,069

### 15. Lease commitments

	2014 \$000	2013 \$000
Non-cancellable operating lease commitments, payable:		
Not later than one year	134	431
Later than one year and not later than two years	-	38
Later than two years and not later than five years	-	-
Later than five years	-	-
Total commitments	134	469

EECA leases office premises in Wellington and Auckland. The leases expire on 1 September 2014 and 14 February 2015 respectively. The commitments shown in the table relate to the non-cancellable portion of the lease commitment.

16.	Financial	&	industry	support	commitments
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	2014 \$000	2013 \$000
Total financial & industry support commitments:		
Electricity Efficiency	3,801	4,283
Business	4,584	1,921
Warm Up New Zealand: Heat Smart	-	11,383
Warm Up New Zealand: Healthy Homes	3,605	-
Ratana	-	56
Wood Energy	-	72
Marine Fund	-	574
Total commitments	11,990	18,289
Payable:		
Not later than one year	10,849	17,887
Later than one year and not later than two years	937	402
Later than two years and not later than five years	204	-
Later than five years	-	-
Total commitments	11,990	18,289
Financial & industry support commitments included in retained earnings		
Business–Electricity Efficiency	3,801	4,268
Business	4,584	1,921
Ratana	-	56
Wood Energy	-	72
Marine Fund	-	54
Total financial & industry support commitments included in retained earnings	8,385	6,371
Financial & industry support commitments-funded from future years' revenue	3,605	11,918

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.

### 17. Related party disclosures

Directors' disclosures

	Value of payme by EECA to i			
Interested party	Director's interest in party	2014	2013	
GNS Science	Tom Campbell–Chair	-	2,000	
Contact Energy	Marion Cowden-Beneficial interests	44,841	16,620	
	Mark Oldfield–Beneficial interests	-	-	
	Janet Carson- Beneficial interests	-	-	
OPUS	Marion Cowden–Beneficial interests	667,878	846,597	
	Elena Trout–Consultant	-	-	
ICS Multimedia Ltd	Marion Cowden–Partner ceased employment with ICS in the 2012/13 financial year	-	106,552	
NZ Standards Council	Tom Campbell–Director	44,689	57,320	
Institution of Professional Engineers NZ (IPENZ)	Elena Trout–Director	2,658	1,467	
Ministry of Social Development	Elizabeth Tanielu-Employee	12,192	-	
Bell Gully	David Coull- Partner	12,803	-	

Alastair Hines, a member of the Chief Executive's Leadership Team, is a Trustee of Christchurch Agency for Energy (CAfE). EECA has paid CAfE a total sum of \$130,805 and received fees of \$50,000 for the administration of CAfE grants.

No other related party transactions took place during the period of review for Directors or any of the members of the Chief Executive's leadership team.

#### Significant transactions with government-related entities

All related party transactions have been entered into on an arms' length basis.

EECA is a wholly-owned entity of the Crown.

EECA has been provided with revenue from the Crown of \$84.47 million (2013: \$116.55 million) for specific purposes as set out in its founding legislation and the scope of the relevant government appropriations.

#### Collectively, but not individually, significant transactions with government-related entities

In conducting its activities, EECA is required to pay various taxes and levies (such as GST, FBT, PAYE and ACC levies) to the Crown and entities related to the Crown. The payment of these taxes and levies, other than income tax, is based on the standard terms and conditions that apply to all tax and levy payers. EECA is exempt from paying income tax. EECA also purchases goods and services from entities controlled, significantly influenced or jointly controlled by the Crown. Purchases from these government-related entities for the year ended 30 June 2014 totalled \$1.24 million (2013: \$2.35 million). These purchases included the purchase of air travel from Air New Zealand, financial & industry support to district councils and postal services from New Zealand Post.

### 18. Insurance and indemnities

EECA provides Board member and officers' liability, statutory liability and professional indemnity insurance cover in respect of liability for losses or costs incurred by a member of the Board or an employee of EECA in the course of their duties to EECA. EECA indemnifies employees in respect of liability for loss or costs they incur in the course of their duties to EECA provided that they have acted in good faith and in accordance with internal processes and practices.

### 19. The Authority members' fees

	2014 \$000	2013 \$000
Board members' fees during the year were:		
T Campbell (Chair appointed February 2013)	28	12
M Cowden (Deputy Chair from August 2011)	17	17
T Currie (resigned December 2013)	6	14
M Oldfield (appointed December 2010)	14	14
M English (appointed December 2010)	-	-
J Carson (appointed August 2011)	14	14
E Tanielu (appointed August 2011)	14	14
E Trout (appointed February 2013)	14	6
A Pearce (resigned December 2012)	-	19
D Coull (appointed February 2014)	6	-
Total fees paid	113	110

### 20. Key management personnel compensation

	2014 \$000	2013 \$000
Salaries and other short-term employee benefits	1,810	1,852
Total key management personnel compensation	1,810	1,852

Key management personnel includes the Board, Chief Executive and the other members of the Chief Executive's Leadership Team.

### 21. Employees' remuneration

Total remuneration and benefits	Number of employees 2014	Number of employees 2013
100,000-109,999	7	9
110,000-119,999	8	7
120,000-129,999	4	3
130,000-139,999	3	1
140,000-149,999	5	4
150,000-159,999	-	2
170,000-179,999	-	3
180,000-189,999	1	-
190,000-199,999	-	1
210,000-219,999	1	-
240,000-249,999	1	1
250,000-259,999	1	-
270,000-279,999	-	1
280,000-289,999	1	-

The Chief Executive's remuneration and benefits are in the \$280,000-\$289,999 band. (2013: \$270,000-\$279,999 band).

As at balance date there were no unresolved employment-related matters that could lead to compensation payments.

### 22. Contingencies

There were no contingent liabilities nor contingent assets at balance date (2013: nil).

### 23. Events after the balance date

Following the conclusion of a successful Request for Proposal under the Warm Up New Zealand: Healthy Homes programme, EECA has signed contracts with 11 service providers committing 2014/15 funding of \$36 million.

### 24. Financial instrument risks

### Financial instruments which expose EECA to risk include:

- > held-to-maturity investments
- > loans and receivables
- > payables.

#### Held-to-maturity investments

These comprise cash and cash equivalents, which include short-term deposits of less than 90 days and financial assets. As at balance date there were two term deposits of more than 90 days.

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 \$23,570,771 (2013: \$20,629,165).

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
- 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). Westpac has an AA credit rating. 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 (see note 7).

The fair value of short-term deposits, disclosed under note 7 as at 30 June 2014, was \$10,009,863. This compares with the carrying value of the investment of \$10,000,000.

If interest rates had been 10 basis points higher, the fair value of short-term deposits would have been higher by \$247.

### Loans and receivables

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

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.

The fair value of the loans as at 30 June 2014 was \$4,786,324. This compares with the carrying value of the loans of \$5,149,350.

If interest rates were 10 basis points higher, the fair value of the loans would be lower by \$7,991.

### 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.

### 25. Capital management

The Board takes all possible precautions to ensure that no adverse event arises. For instance, it strictly adheres to the prudential requirements on financial management imposed by the Crown Entities Act 2004. It also transfers its risks by purchasing various forms of insurance from appropriate credit worthy insurers.

### 26. Explanation of significant variances against budget

EECA is required to report on the budget as disclosed in the Statement of Intent.

The following comments summarise the substantial variances between actual and budgeted performance as disclosed in these financial statements.

### Statement of comprehensive income

#### Revenue

#### Crown revenue

The Warm up New Zealand: Heat Smart programme was a multi-year appropriation, which finished on 30 June 2014. The Statement of Intent budget was based on an estimated balance of appropriation remaining as at publishing date. The programme continued to prove very positive with the uptake climbing towards the end of the financial year end 30 June 2013. This increase in retrofits decreased the funding available to bring the programme to an end in 2013/14.

### Other revenue

The contribution from MBIE towards the end use energy data survey has been paid directly to Statistics New Zealand. Neither the revenue from MBIE nor the expense to Statistics New Zealand form part of EECA's financial accounts.

#### Interest received

Effective cash management processes alongside improved interest rates during the financial year have resulted in higher interest being earned.

#### **Expenses**

#### Personnel

A continued priority for 2013/14 has been doing more with less. The cost associated with the pending completion of the organisational review, which aims to ensure EECA is best placed to support its current and future energy and efficiency initiatives, was more than expected within the Statement of Intent.

#### Other operating expenses

Following on from the priority of doing more with less, EECA has been fortunate to have been able to use inhouse resources for many large evaluation and project management assignments. The Statement of Intent also assumed greater focus would be applied to supporting businesses with energy development initiatives. This cost category has shifted to the financial & industry support cost category and hence there remains a variance under other operating expenses.

#### Financial & industry support

The Warm up New Zealand: Heat Smart programme was a multi-year appropriation, which wound down during this year. The Statement of Intent budget was based on estimated balance of appropriation remaining as at publishing date of \$20.3 million. The programme continued to prove very positive with the uptake climbing towards the end of the financial year end 30 June 2013. This decreased the funding available to bring the programme to an end in 2013/14, to \$15.9 million.

### Surplus for the year

EECA recorded a surplus of \$1.76 million compared with a budgeted deficit of \$4 million. The key areas contributing to this variance were:

- > additional interest revenue (\$0.41 million)
- higher business commitments under financial and industry support contracts (\$3.51 million)
- efficiency gains through the use of in-house resourcing for pilot programmes (\$0.90 million)
- > savings through less travel, ICT contracts, property rental negotiations and a general reduction of operational expenditure accounts for the balance of variance (\$0.94 million).

### Statement of financial position

### Cash and cash equivalents and other financial assets

The total cash and cash equivalents and other financial assets are \$11.05 million above budget. This is due to funding received to cover committed funds as they fall due.

#### **Crown receivables**

The Crown receivables balance relates to the funding receivable by the Warm up New Zealand: Healthy Homes scheme for June of \$.07 million and the Crown loans scheme of \$0.20 million.

#### **Crown loans**

Crown loans are both assets and liabilities. EECA funds the third party from borrowed Crown funds. There is a small variance between actual and budgeted figures which is due to undersubscribing of loans (\$0.08 million) in 2013/14.

#### Trade and other payables

Payables were \$1.43 million higher than budgeted and predominantly relate to the significant increase in demand for insulation retrofits within the new Healthy Homes programme.

#### **Employee entitlements**

As noted earlier, EECA is completing a restructure as a result of an organisational review. A provision for employment costs resulting from the restructure has been provided for this financial year.

# **Glossary and Measurement**

**Business awareness** – reported based on an annual representative survey of the business market undertaken by consultants IPSOS.

**Business capability building** – data on the number of people trained is provided by University of Waikato and the Energy Management Association of New Zealand.

**Commercial building projects** – project grants tracked by EECA.

**Commercial sector** – sector includes non-manufacturing businesses such as offices, health, social and education institutes, hotels.

**Crown loans** – annual savings from each project are provided by the loan recipient.

**Direct energy savings from the commercial and industrial programmes** – energy savings tracked by EECA.

Direct energy savings through the transport programme – energy savings tracked by EECA.

**District energy scheme** – a centralised energy scheme that uses renewable fuels to provide heating for commercial and/or residential use.

**EECA Business influence** – reported based on an annual representative survey of the business market undertaken by consultants IPSOS.

**Efficient lighting** – market share reported based on supermarket sales data provided to EECA annually.

**Energy intensity** – a measure of the amount of energy used to produce a unit of output – gross domestic product. The lower the intensity, the more efficiently energy is being used.

**Energy savings attributed to product standards** – forecast and actual savings for the period 1 April 2012 to 31 March 2013 for products sold under the programme to date and assumed to still be operating.

**ENERGY SPOT effectiveness** – reported based on market surveys undertaken by consultants IPSOS.

**ENERGY STAR** – a global mark of energy efficiency, administered in New Zealand by EECA. It is awarded to the most energy efficient appliances and products in a range of categories and it is measured by market surveys.

**ENERGYWISE brand awareness** – reported based on an annual representative survey of the business market undertaken by consultants IPSOS.

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

**Geothermal energy** – energy derived from the heat in the interior of the earth.

**Gigawatt-hour (GWh)** – one gigawatt-hour is equal to one million kilowatt-hours. New Zealand's annual electricity demand is approximately 38,000 GWh. Huntly power station running at full capacity for one hour would produce one gigawatt-hour of electricity.

**Greenhouse gas emissions** – gas emissions contribute to climate change. These include carbon dioxide ( $CO_2$ ), methane and nitrous oxide. In the energy sector, the burning of fossil fuels (oil, coal, gas) for heat, transport or electricity generation creates  $CO_2$  emissions.

**Heavy transport fleet influence** – influence is defined as the total litres of fuel use subject to EECA's programmes as reported to EECA by industry players.

**Increased use of renewable energy** – data are provided by MBIE.

**Industrial motor system market share** – based on EECA programme data.

**Industrial process heat market share** – data are provided based on the EECA Heat Plant Database and EECA programme data.

**Industrial sector** – includes manufacturing, metal production, construction, wood processing and dairy processing.

**LEDs (light emitting diodes)** – a super efficient form of lighting which is very cheap to run but currently expensive to buy.

**Light transport fleet efficiency** – reported based on fleet fuel consumption data from the Ministry of Transport.

**Marine energy** – electricity generation using the energy of the waves and tides in the ocean.

**Megawatt (MW)** – unit of power to show the rate at which energy is produced or used (one million watts).

Minimum Energy Performance Standards and Mandatory Energy Performance Labelling – the number of product classes listed in Schedules 1 and 2 of the Energy Efficiency (Energy Using Products) Regulations 2002 (as at 30 June 2014). Consultation with industry is based on the total number of consultation regulatory impact statements published on the energyrating.gov.au and/or eeca.govt.nz websites during the period 1 July 2013 to 30 June 2014. The level of compliance with standards is measured through a survey of at least 200 retail stores undertaken by EECA.

**NABERSNZ** – the New Zealand commercial building energy rating tool.

**NABERNZ** assessors – number of assessors trained is confirmed by the New Zealand Green Building Council.

**NABERSNZ ratings** – number of Certified Ratings is confirmed by the New Zealand Green Building Council.

**Peak demand** – the highest energy demand during a period (typically in relation to daily electricity use).

**Petajoule (PJ)** – 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. The cost applying at the start of 2013/14 is used to provide consistency with the Statement of Intent. At the time of calculation, this value was 9.35 c/kWh, using MBIE's industrial electricity price as a proxy.

A petajoule is 1x1015 (1,000,000,000,000,000) joules. One PJ is equal to approximately:

- > 278 GWh (278 million kWh) of electricity
- > 25.8 million m<sup>3</sup> of natural gas
- > 49 million kilograms of sub-bituminous coal
- > 26 million litres (a coastal oil tanker) of imported oil
- The amount of energy used by 25,000 households in one year.

**Process heat** – heat used in industrial processes; for example, boilers and steam systems.

**Renewable energy** – energy produced from solar, wind, hydro, geothermal, biomass, tidal, wave and ocean current sources.

**Thermal envelope** – defined as the roof, wall, glazing, doors and floor construction between conditioned spaces and unconditioned spaces or outdoors and reported based on analysis of data from EECA, Building Research Association of New Zealand and Statistics New Zealand.

Vehicle Fuel Economy Label effectiveness and influence – a measure of how much fuel a vehicle will use to travel a certain distance.

Warm Up New Zealand insulation programmes measurements – EECA validates the number of homes insulated via a grants management database and the funding arrangements are consistent with the basic principles articulated by the Controller and Auditor General (explained here – www.oag.govt.nz/2008/ funding-arrangements/docs/funding-arrangements.pdf).

**Website effectiveness** – data provided to EECA by the website provider.

AUDIT NEW ZEALAND Mana Arotake Aotearoa

### **Independent Auditor's Report**

### To the readers of Energy Efficiency and Conservation Authority's financial statements and non-financial performance information for the year ended 30 June 2014

The Auditor-General is the auditor of the Energy Efficiency and Conservation Authority (EECA). The Auditor-General has appointed me, Clint Ramoo, using the staff and resources of Audit New Zealand, to carry out the audit of the financial statements and non-financial performance information of EECA on her behalf.

We have audited:

- the financial statements of EECA on pages 67 to 90, that comprise the statement of financial position as at 30 June 2014, the statement of comprehensive income, statement of changes in equity and statement of cash flows for the year ended on that date and notes to the financial statements that include accounting policies and other explanatory information; and
- the non-financial performance information of EECA that comprises the statement of service performance on pages 18 to 62 and the report about outcomes on pages 35 to 36, 51 to 52 and 59 to 60.

### Opinion

In our opinion:

• the financial statements of EECA on pages 67 to 90:

comply with generally accepted accounting practice in New Zealand; and

fairly reflect EECA's:

- financial position as at 30 June 2014; and
- financial performance and cash flows for the year ended on that date.
- the non-financial performance information of EECA on pages 18 to 62:

complies with generally accepted accounting practice in New Zealand; and

fairly reflects EECA's service performance and outcomes for the year ended 30 June 2014, including for each class of outputs:

- its service performance compared with forecasts in the statement of forecast service performance at the start of the financial year; and
  - its actual revenue and output expenses compared with the forecasts in the statement of forecast service performance at the start of the financial year.

Our audit was completed on 26 September 2014. This is the date at which our opinion is expressed.

The basis of our opinion is explained below. In addition, we outline the responsibilities of the Board and our responsibilities, and we explain our independence.

### **Basis of opinion**

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the International Standards on Auditing (New Zealand). Those standards require that we comply with ethical requirements and plan and carry out our audit to obtain reasonable assurance about whether the financial statements and non-financial performance information are free from material misstatement.

Material misstatements are differences or omissions of amounts and disclosures that, in our judgement, are likely to influence readers' overall understanding of the financial statements and non-financial performance information. If we had found material misstatements that were not corrected, we would have referred to them in our opinion.

An audit involves carrying out procedures to obtain audit evidence about the amounts and disclosures in the financial statements and non-financial performance information. The procedures selected depend on our judgement, including our assessment of risks of material misstatement of the financial statements and non-financial performance information, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the preparation of EECA's financial statements and non-financial performance information that fairly reflect the matters to which they relate. We consider internal control 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 EECA's internal control.

An audit also involves evaluating:

- the appropriateness of accounting policies used and whether they have been consistently applied;
- the reasonableness of the significant accounting estimates and judgements made by the Board;
- the appropriateness of the reported non-financial performance information within EECA's framework for reporting performance;
- the adequacy of all disclosures in the financial statements and non-financial performance information; and
- the overall presentation of the financial statements and non-financial performance information.

We did not examine every transaction, nor do we guarantee complete accuracy of the financial statements and non-financial performance information. Also we did not evaluate the security and controls over the electronic publication of the financial statements and non-financial performance information.

We have obtained all the information and explanations we have required and we believe we have obtained sufficient and appropriate audit evidence to provide a basis for our audit opinion.

### **Responsibilities of the Board**

The Board is responsible for preparing financial statements and non-financial performance information that:

- comply with generally accepted accounting practice in New Zealand;
- fairly reflect EECA's financial position, financial performance and cash flows; and
- fairly reflect its service performance and outcomes.

The Board is also responsible for such internal control as is determined necessary to enable the preparation of financial statements and non-financial performance information that are free from material misstatement, whether due to fraud or error. The Board is also responsible for the publication of the financial statements and non-financial performance information, whether in printed or electronic form.

The Board's responsibilities arise from the Crown Entities Act 2004 and the Energy Efficiency and Conservation Act 2000.

### **Responsibilities of the Auditor**

We are responsible for expressing an independent opinion on the financial statements and non-financial performance information and reporting that opinion to you based on our audit. Our responsibility arises from section 15 of the Public Audit Act 2001 and the Crown Entities Act 2004.

### Independence

When carrying out the audit, we followed the independence requirements of the Auditor-General, which incorporate the independence requirements of the External Reporting Board.

Other than the audit, we have no relationship with or interests in EECA.

Clint Ramoo Audit New Zealand On behalf of the Auditor-General

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New Zealand Government



