

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

**ENERGY EFFICIENCY AND CONSERVATION AUTHORITY  
STATEMENT OF INTENT 1 JULY 2014–30 JUNE 2018**

[New Zealand Government](#)



# EECA'S Mission

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EECA is a Crown entity which implements the Government's priorities in the areas of energy efficiency, energy conservation and renewable energy.

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

New Zealand spends approximately \$18 billion on energy each year. We estimate that annual savings of around 15%–20% could be realised from targeted efficiency programmes.

EECA's work seeks to free this resource and re-deploy it into the economy for the national benefit. Our work is particularly relevant in helping New Zealand move towards a lower emissions economy, and in helping householders save money and businesses become more productive.

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# Chair's Foreword

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**Energy powers the engine of the economy and is a prerequisite to its growth. Without it our businesses, roads and homes would grind to a halt. Getting the tuning right, ensuring all of the parts are working together and the right fuel is going in, leads to a productive economy.**

The potential is huge. Energy efficiency measures could cut about 20% of New Zealand's energy use. That's about \$2.4 billion a year that could be saved in energy costs alone. Those energy efficiency measures, coupled with increasing the use of renewable energy, can result in New Zealand's cheapest carbon dioxide (CO<sub>2</sub>) emissions reduction. EECA has identified about five million tonnes of CO<sub>2</sub> equivalent abatement that arises from energy efficiency measures that also save money. This is equivalent to the emissions of about two-thirds of private cars in New Zealand.

At EECA our focus is on achieving the biggest energy efficiency gains we can for New Zealand, on delivering value and working with others to achieve our goals. Over the coming four years, EECA will work to achieve real change in the business, transport and residential sectors.

EECA's role in helping to deliver the Government's Business Growth Agenda is in supporting businesses to improve their productivity and reduce CO<sub>2</sub> emissions.

As New Zealand businesses look to become more productive and competitive, they will increasingly find solutions in energy efficiency. Reducing costs through energy efficiency isn't the end of the story – it's just the beginning. The improvements set in motion when we use resources better can also deliver gains in export competitiveness, productivity and safety on our roads, and reduced CO<sub>2</sub> emissions.

I'm excited by our plans in the business sector. There will be a greater focus on information and influencing through partnerships, targeting the top 200 energy-using businesses where the biggest gains can be made and working with industry groups.

I'm confident businesses will make the decision to invest in energy efficiency because the business case stacks up. Our challenge is to make that business case more attractive by better demonstrating the link between energy efficiency and strategic priorities such as improved competitiveness, greater productivity, CO<sub>2</sub> emissions reduction and better health and safety.

In the transport sector, there will be more focus from EECA. The potential for increased fuel efficiency and renewable fuels is enormous and alongside that comes safer roads and lower CO<sub>2</sub> emissions.

Trucks and heavy commercial vehicles consume about a third of all transport energy and there is potential for fleet operators to save up to 15% of their fuel use. EECA will expand its current Heavy Vehicle Fuel Efficiency programme to capture more of the fuel savings and CO<sub>2</sub> emissions available here.

**GREATER  
ENERGY  
EFFICIENCY**  
COULD SAVE US ABOUT  
**\$2.4**  
**BILLION A YEAR**

In the light vehicle area, we will be working in partnership with the vehicle industry to run an information campaign to increase consumer awareness and uptake of fuel efficient tyres. Private vehicles are responsible for about 10% of New Zealand's CO<sub>2</sub> emissions. With over three million cars on our roads, increased uptake of fuel efficient tyres represents a significant opportunity to reduce emissions at a national level – and to improve safety on our roads.

We know there's still more to do in the residential sector, and it's broader than insulation. Our work in this area will be a combination of the traditional thermal envelope of the home (insulation, draught stopping), the products (energy using appliances) in it and influencing the behaviour of people in their homes (what we do, how we use appliances and how we choose the homes we rent or buy). Successfully pulling those elements together will see a real shift in residential energy efficiency.

As with our other programmes, partnerships are a key part of delivery in the residential sector. EECA has partnered with third party funders to insulate nearly half of the 250,000 homes retrofitted so far. This third party funding has contributed over \$100 million making a significant result we can all be proud of. Over the next two years, a further 30,000 low-income households will receive free insulation as part of the Warm Up New Zealand: Healthy Homes Programme.

The Canterbury recovery continues to be a priority for us, as it is across government. The team at EECA is committed to working with Christchurch organisations to do what we can to support the recovery and rebuild of a truly sustainable city.

Internally at EECA, an organisational review in 2013 has led to a restructure which, along with new ways of working together, will help us deliver on our priorities which are in the transport, business and residential sectors. These will be supported by the strategic delivery and corporate services teams which are critical to our delivery.

Our long-term goal is a future where New Zealanders are motivated to choose energy efficient options as a part of everyday life – in business, on the road and in their homes. The initiatives set out in this Statement of Intent are a step towards achieving that.



**Tom Campbell**  
Chair

# Strategic Direction

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**EECA's long-term strategy is derived from the New Zealand Energy Efficiency and Conservation Strategy (NZECS)<sup>1</sup>, and the New Zealand Energy Strategy (NZES). These documents set out the Government's strategic direction for the energy sector and the role energy plays in the New Zealand economy.**

Through the NZES, the Government sets out its goal for New Zealand to make the most of its abundant energy potential, for the benefit of all New Zealanders, through the environmentally-responsible development and efficient use of the country's diverse energy resources. NZES 'areas of focus' of relevance to EECA's strategic direction 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

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

- align with, and support the 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 business to improve productivity through enhanced business competitiveness and to reduce energy-related carbon dioxide (CO<sub>2</sub>) emissions in line with the Business Growth Agenda – which includes 'transitioning to a low-emissions economy.'

EECA's Statement of Intent is actioned through EECA's annual business plans, and its priorities inform EECA's internal structure. An EECA Board-sponsored organisational review was undertaken by EECA management during 2013.

<sup>1</sup> Having a NZEECS is a requirement of the Energy Efficiency and Conservation Act 2000.

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There are further inputs to the development of the Statement of Intent that fall under the following headings:

### **Strategic context and outlook**

- An updated assessment of energy end use and the potential for achieving improvements in energy efficiency and renewables.
- A rethink of EECA's role in the market place, and the way EECA intervenes in markets (e.g. a move away from direct capital funding in the business sector).
- A focus on the things that matter to New Zealanders through constantly looking for ways to improve how EECA does business and delivers value for money.

### **Programme portfolio**

- The range of programmes covering the best opportunities in the residential, transport and business markets. The portfolio approach allows programmes to be scaled and phased over time to match EECA's resources.

### **Programme delivery**

- A clear focus on delivery including a new approach to the business sector to place a greater focus on information and influencing through partnerships, targeting the largest energy users and sectors to realise energy efficiency opportunities and working with key industry groups.
- A new initiative to investigate the potential to extend EECA's international engagement to encompass the provision of services in other jurisdictions on commercial terms where there is a clear opportunity to enhance its work in New Zealand.

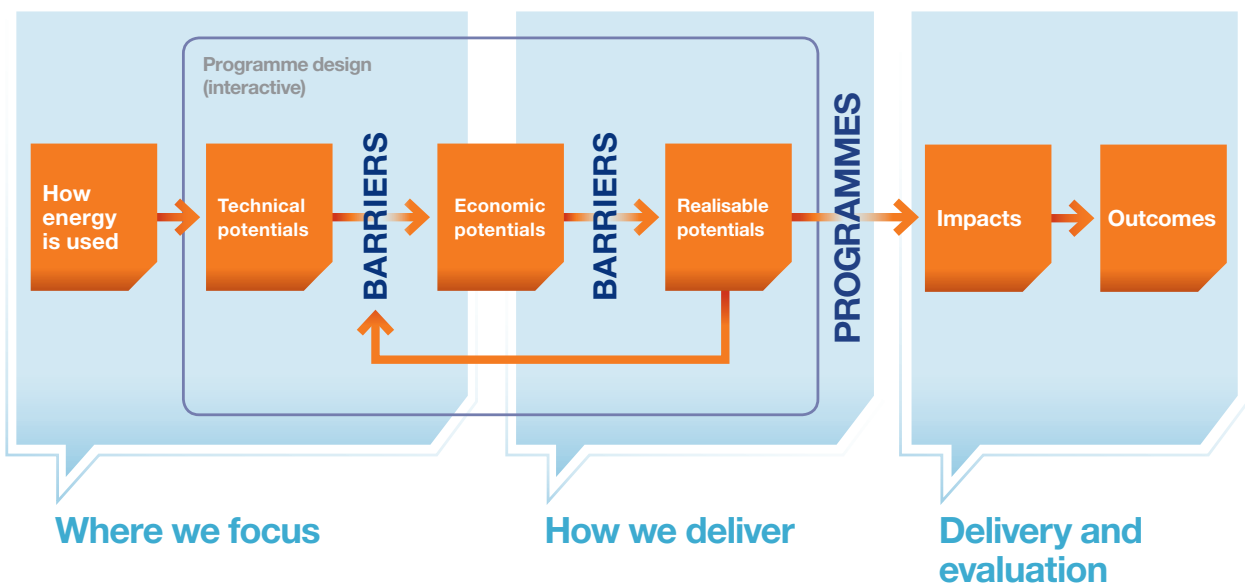
OUR FOCUS IS ON  
WHERE WE CAN MAKE  
**THE BIGGEST  
REALISABLE  
DIFFERENCE  
TO ENERGY USE**

### EECA’s operating model

The operating model outlined in Figure 1 is how EECA determines which programmes will be prioritised. It is:

- a pragmatic, transparent process for evaluating and ranking programmes based on clear criteria, including the need for government intervention, rigorous cost-benefit analyses and delivering the greatest net benefit (on a national basis). All programmes must demonstrate not only how they contribute to EECA’s four-year targets for changes in market state, but also why they are necessary to achieve these targets.
- a robust measurement and evaluation framework to assess achievement of strategic objectives. EECA uses a combination of hard metrics and market surveys. Independent validation of outcomes is undertaken by external parties on large value programmes. Progress towards achieving strategic objectives is reported in the Annual Report and annual measures are reported to the Minister of Energy and Resources on a quarterly basis.
- an open and collaborative engagement model with relevant organisations, the business community, international agencies, Māori and other communities.

Figure 1: EECA’s Operating Model





# Operating Environment

**Improving New Zealand's economic, environmental and social well-being requires many actions in many sectors – there is no single, simple solution.**

EECA plays an important role within the energy sector in maximising the net benefits to New Zealand arising from the uptake of energy efficient technologies and behaviours and renewable energy resources. One particular benefit arising from these initiatives is New Zealand's lowest cost greenhouse gas abatement due to:

- relatively inefficient use of energy in some sectors (e.g. in transport)
- significant co-benefits associated with CO<sub>2</sub> emissions reduction
- extensive high-quality renewable energy resources (geothermal heat and wood which are competitive with fossil fuels in many instances).

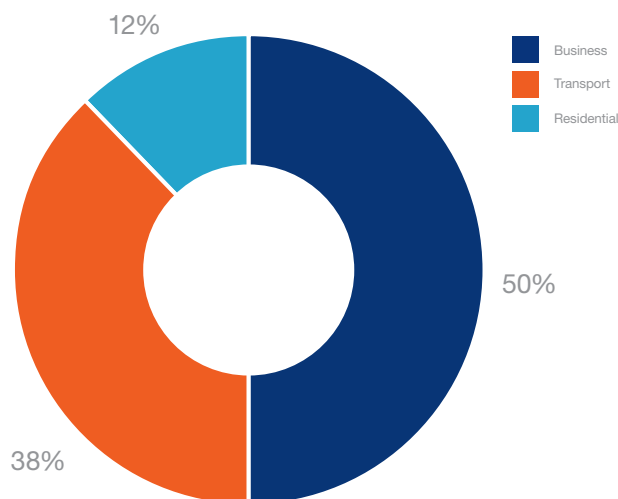
Within the energy sector, the greatest opportunities for both energy savings and CO<sub>2</sub> reductions are in transport and industrial heat (e.g. where coal is used as a heat source for industrial processes such as drying milk powder in dairy factories). Together, these two areas represent about three-quarters of New Zealand's energy-related CO<sub>2</sub> emissions; and a quarter of total national emissions.

Increasing our energy efficiency and our use of renewable energy resources is part of this solution and comes with many benefits.

These benefits are widespread including improved business

productivity, reduced business costs, improved export competitiveness and reputation in international markets, improved health, improved transport safety and reduced energy-related CO<sub>2</sub> emissions.

Figure 2: New Zealand Energy Use by Sector



# EECA's Strategic Objectives

**EECA's purpose is to maximise the net benefits to New Zealand that come from the uptake of energy efficiency and energy from renewable resources. This is achieved by developing and delivering energy efficiency and renewable energy-related programmes.**

New Zealand has the potential to save about 20% of national energy use through energy efficiency measures. This adds up to about \$2.4 billion a year in energy cost savings. Other benefits include improved health, reduced CO<sub>2</sub> emissions and fewer transport accidents.

EECA uses its operating model to determine which opportunities are of greater value, and therefore a priority for development into new programmes.

EECA works in three sectors: residential, transport and business. We have identified programme opportunities in these areas that, once addressed, will yield the most cost-effective energy savings, CO<sub>2</sub> emissions reduction and other significant benefits.

The following sections outline the strategic objectives and the four-year changes of market state EECA seeks to influence across the three sectors.

## Outcome framework



## Residential

The residential sector (excluding transport) is responsible for about 12% of total energy use, and about 8% of energy-related CO<sub>2</sub> emissions.

The residential market is defined by our homes, including the buildings themselves, and all of the products and appliances within. It also includes how we live and behave (e.g. opening windows for ventilation, taking shorter showers).

The residential market is predominantly fuelled by electricity, but gas, wood and passive solar energy are also used.

The outcome that EECA seeks in the residential market is 'warm, dry and more energy efficient homes'. To achieve this we have three overarching areas of focus: the home (e.g. poorly insulated homes), the appliances we use and energy choices we make in our everyday lives. This outcome is also a NZEECS objective, along with improved air quality to avoid ill-health and lost productivity.

EECA's residential programmes contribute to a range of wider government priorities, including:

### Improving the thermal performance of New Zealand homes

- through our flagship insulation programmes
- by helping people identify wider 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.

### 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.

### Supporting the rebuild of Christchurch

- by providing advice on cost-effective energy efficient and renewable technologies for Christchurch houses, as part of the rebuild.

Figure 3: Residential Energy Use

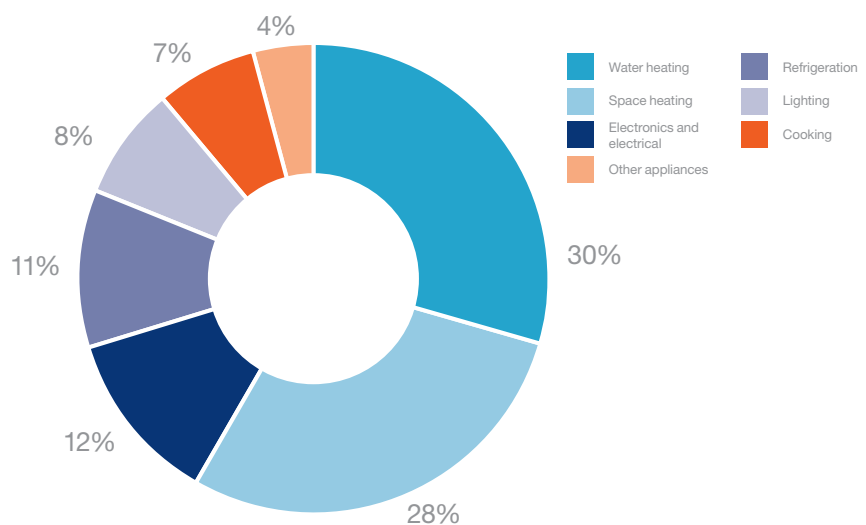
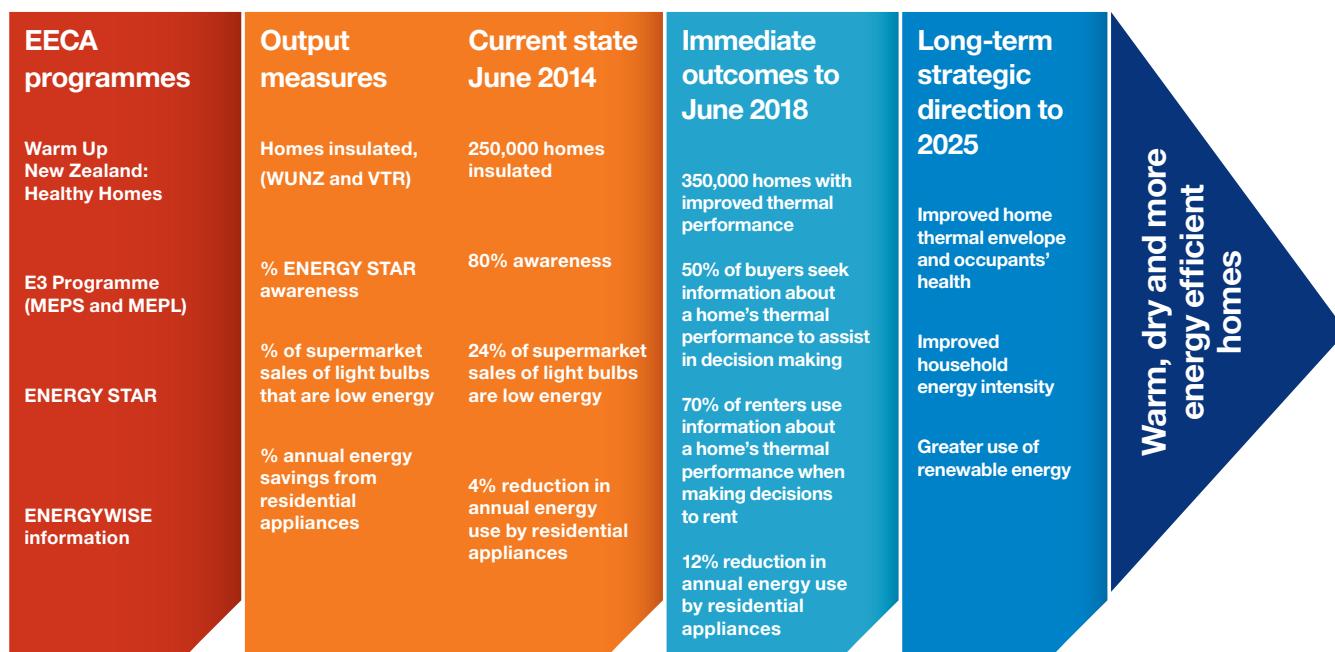


Figure 4: Residential Sector Strategic Priorities and Impact Measures



### Key programmes

EECA information campaigns are used to raise awareness and change behaviour in the residential market. The combination of a high-profile, independent information campaign, including the ENERGY SPOT™, and an incentive to act in the form of the Warm Up New Zealand insulation funding, made a real difference to New Zealanders' understanding and willingness to improve the thermal performance of their homes.

EECA will continue to implement information campaigns, and targeted insulation funding, while developing a new initiative in this area.

The key programmes that will contribute towards EECA's strategic objectives in the residential sector

over the next four years to promote increased energy efficiency and greater use of renewable energy are:

- Warm Up New Zealand: Healthy Homes (WUNZ:HH)
- E3 programme (Minimum Energy Performance Standards (MEPS) and Mandatory Energy Performance Labelling (MEPL))
- ENERGY STAR®
- ENERGYWISE™ information (energy efficiency and renewable energy).

Figure 4 sets out the impact measures, which include outputs and outcomes, for these programmes.

### Measurement and evaluation

In the residential sector the number of homes insulated is assessed. EECA also relies on market surveys to measure the awareness of energy efficiency activity a householder can undertake, along with an assessment of actions taken.

## Transport

Transport accounts for almost 40% of New Zealand's energy use – totalling more than 200 PJ/year. Of this, about 45% is from business transport, and 55% from private transport.

Transport is the biggest area of potential CO<sub>2</sub> emissions reduction. With almost 100% of vehicles currently fossil-fuelled, the sector is responsible for more than 50% of energy-related CO<sub>2</sub> 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.

Our light vehicle fleet is characterised by old inefficient vehicles. Nearly half of the light vehicles entering our fleet each year are nine years old. If we are to make our transport system more efficient, we need to focus on what we drive and how we drive. As well as CO<sub>2</sub> reduction, a significant benefit of driving more efficiently is safety improvements.

The overall outcome EECA seeks in the transport sector is 'efficient, safe and lower CO<sub>2</sub>' transport. This links to the NZEECS objective of a more energy efficient transport system, with a greater diversity of fuels and alternative energy technologies. EECA's transport programmes also contribute to wider government priorities, including:

### Reducing energy-related CO<sub>2</sub> emissions

- through a range of fuel saving initiatives across the carbon-intensive transport sector.

### Increased productivity and a more competitive economy

- by helping businesses and households reduce their fuel and other transport-related costs.

**ALMOST 100% OF ALL VEHICLES ARE FOSSIL-FUELLED MAKING TRANSPORT THE BIGGEST AREA OF POTENTIAL CARBON DIOXIDE REDUCTIONS**

Figure 5: Transport Energy Use

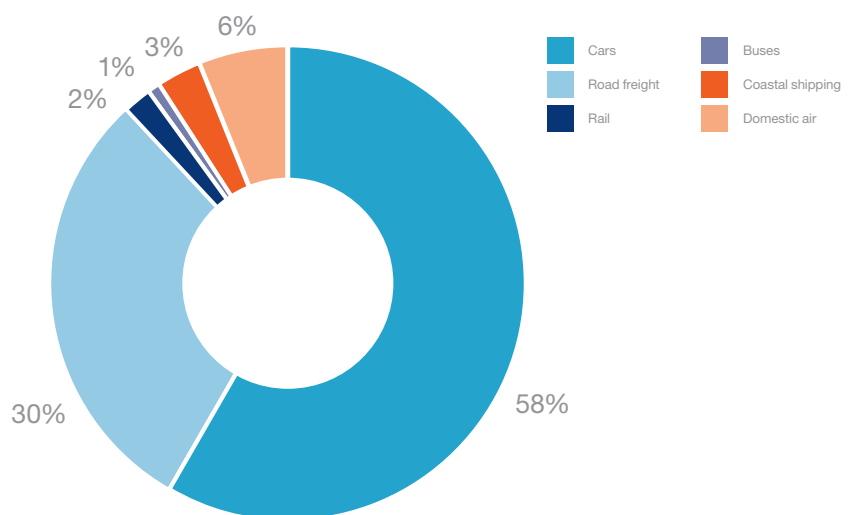
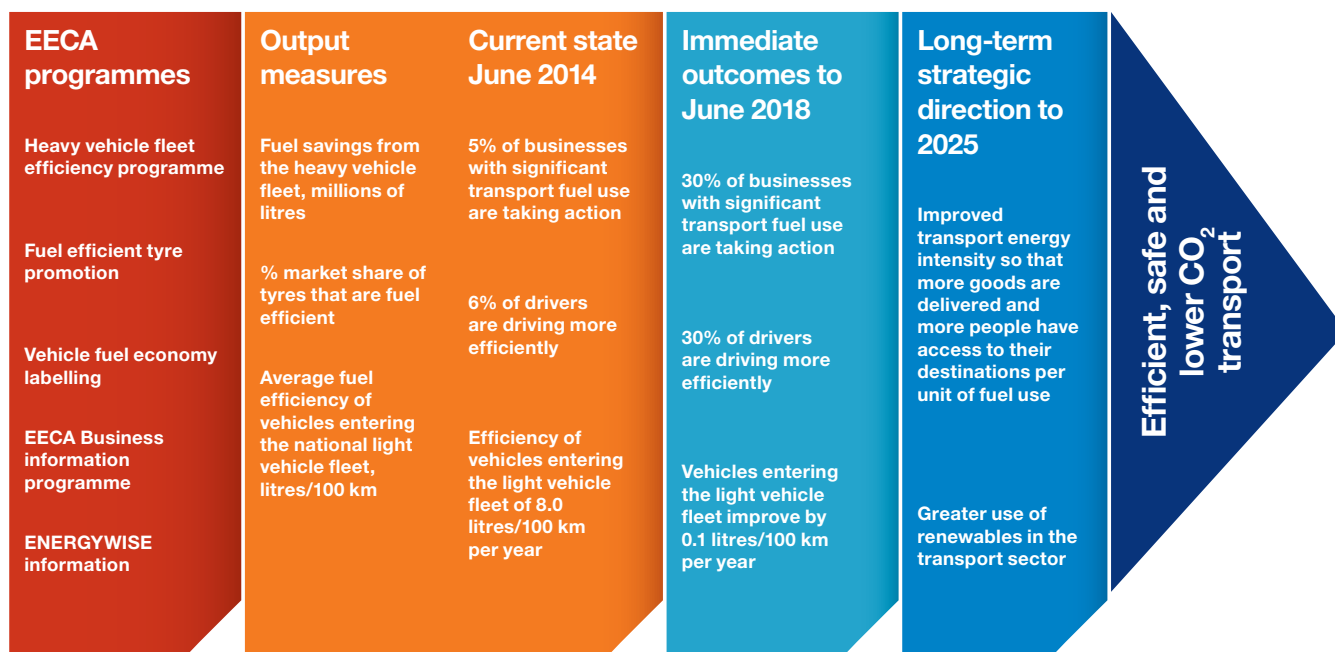


Figure 6: Transport Sector Strategic Priorities and Impact Measures



### Key programmes

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).

Other areas that can deliver energy efficiency benefits from the transport system include public transport, demand management, modal shift and roading infrastructure. EECA will work with the New Zealand Transport Agency and local government to ensure opportunities to develop energy efficiency benefits are maximised in these areas.

The key programmes to contribute towards EECA's strategic objectives in the transport sector over the next four years to promote improved energy efficiency and greater use of renewable energy are:

- Heavy vehicle fleet efficiency programme
- Fuel efficient tyre promotion
- Vehicle fuel economy labelling programme (VFEL)
- EECA Business information programme
- ENERGYWISE information (energy efficiency and renewable energy).

Figure 6 sets out the impact measures, which include outputs and outcomes, for these programmes.

### Measurement and evaluation

Improvement in fuel efficiency is measured in litres/100 km in the heavy transport fleet programme as a proxy for megajoule (MJ) per freight tonne.km.

Energy intensity in the freight transport sector is best measured as the energy used to move a quantity of freight, commonly expressed as MJ per freight tonne.km. However there are gaps in information which do not allow this metric to be readily used in New Zealand. Consequently, improvement in energy efficiency in the heavy transport fleet programme will be measured in litres/100 km for freight vehicles, as a proxy for MJ per freight tonne.km.

Programme activity in the light vehicle segment of the market is surveyed to assess programme awareness and consumer activity undertaken.

## 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. Businesses rely on reliable, affordable and efficient energy to be productive and competitive.

Business electricity use is about 90 PJ/year, and heat energy (and stationary energy) use is about 180 PJ/year.

Businesses can cost-effectively reduce energy use by up to 20%. This is a potential national cost saving of up to \$800 million/year and would be a significant boost to business productivity and international competitiveness.

In the business sector, we seek the outcome of 'enhanced business competitiveness, and lower CO<sub>2</sub> emissions'. This is a NZEECS objective. The business programmes also contribute to a range of government priorities, including increased productivity and a more competitive economy (another of the Government's top four priorities), which fall under the following headings.

### Supporting the rebuild of Christchurch

- 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.

### Increased productivity and a more competitive economy

- by helping businesses save on energy costs, allowing savings to be re-invested in other parts of their business or the economy
- by helping businesses cut CO<sub>2</sub> emissions, thereby improving their reputation in key export markets
- by helping businesses identify new market opportunities based on energy efficient and renewable technologies.

### Reducing energy-related CO<sub>2</sub> emissions

- by implementing a range of measures that help reduce CO<sub>2</sub> emissions while also improving business productivity
- through initiatives in the industrial heat sector, which is one of the two biggest areas of opportunity for CO<sub>2</sub> reduction (and energy) savings (alongside transport).

### 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 (e.g. through helping businesses, schools and hospitals switch from fossil-fuelled to wood-fuelled boilers).

Figure 7: Business Energy Use by Sector

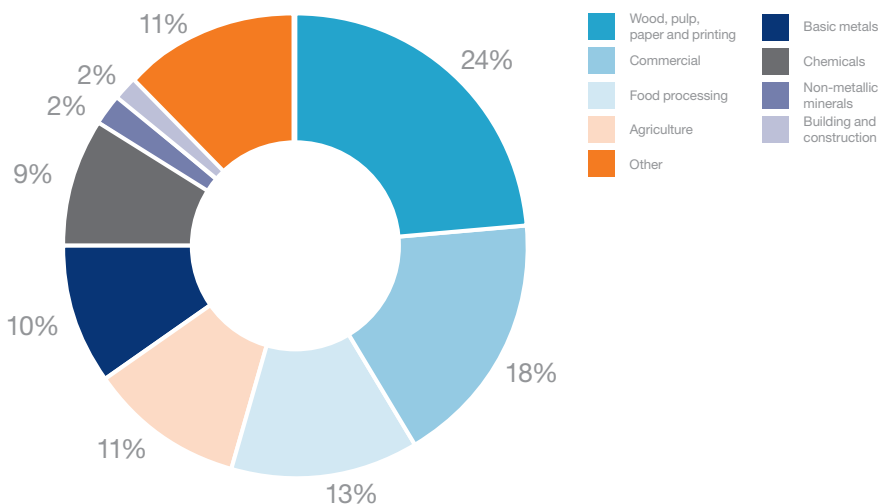


Figure 8: Process Heat by Industrial Sector

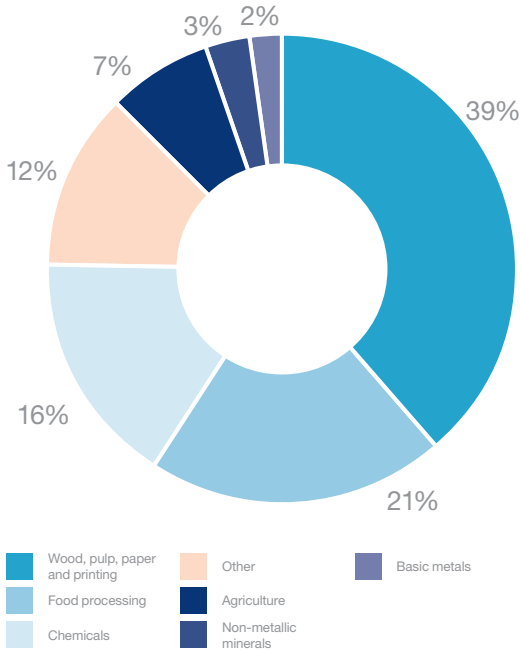


Figure 9: Energy Use in Commercial Sector

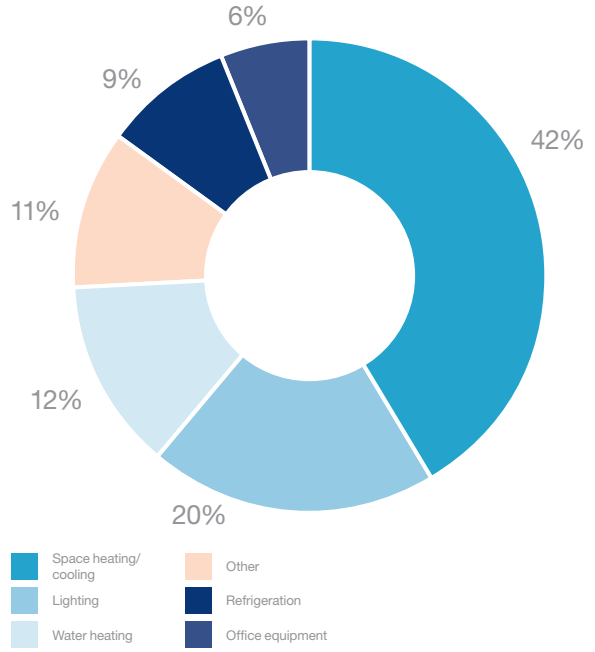
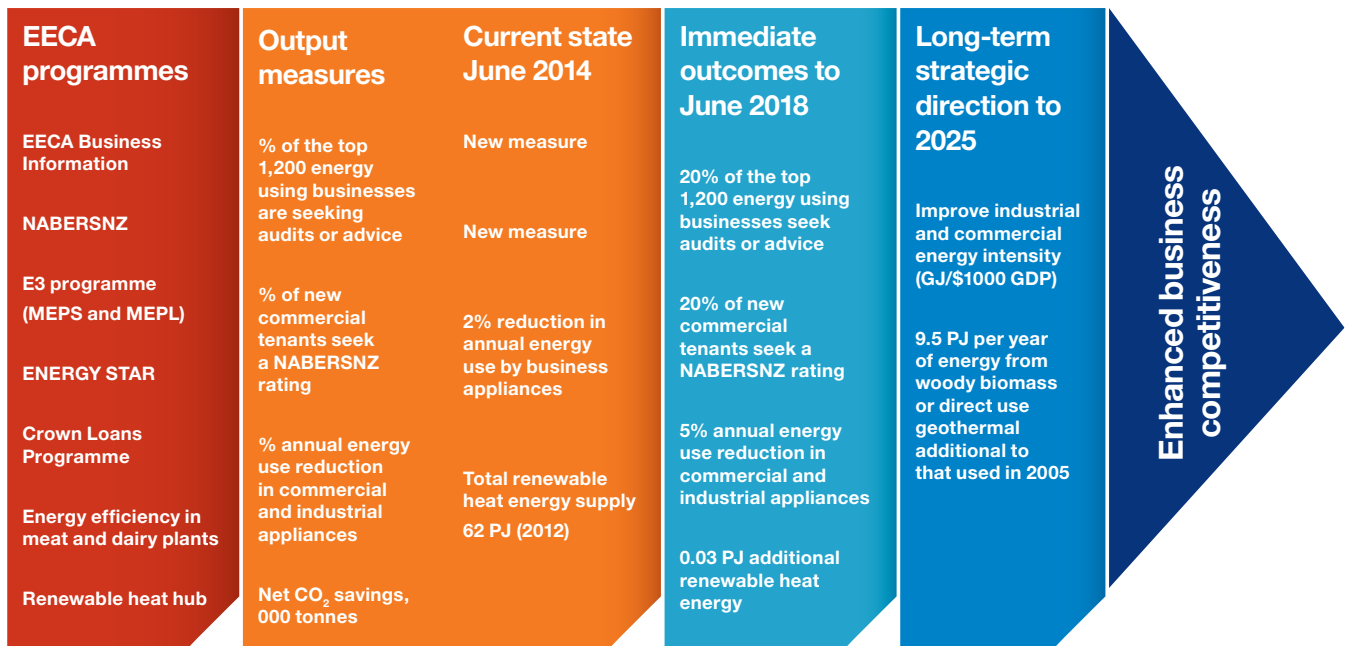


Figure 10: Business Sector Strategic Priorities and Impact Measures





## Key programmes

Programmes for businesses ensure the right mix of information, incentives and codes and standards are in place. The programmes that will contribute towards EECA's strategic objectives over the next four years promote improved energy efficiency and greater use of renewable energy through the following initiatives:

- EECA Business information and influencing programme (energy efficiency and renewable energy)
- NABERSNZ™
- E3 programme (MEPS and MEPL)
- ENERGY STAR
- Crown Loans Programme (for public sector agencies)
- Energy efficiency in meat and dairy heat plants
- Renewable heat hub.

Figure 10 sets out the impact measures, which include outputs and outcomes, for these programmes.

## Measurement and evaluation

In the business sector most programme interventions are assessed based on contracted performance measures agreed with the business. Market surveys and awareness indicators are also used to assess the wider reach of EECA information.

EECA IS WORKING TO  
SUPPORT THE  
BUSINESS GROWTH  
**AGENDA**  
BY SUPPORTING BUSINESSES  
TO BE MORE  
**PRODUCTIVE**  
AND COMPETITIVE

# EECA'S Profile

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## Organisational Development Plan

EECA is introducing a greater focus on information and influencing through strategic partnerships in a range of programmes focused on the best opportunities in the residential, transport and business markets. The new portfolio approach required a rethink of EECA's structure.

The EECA Board and management prepared an Organisational Development Plan (ODP) in 2013/14 to align the organisation design, capability and resources with EECA's work programme and long-term strategy. It positions EECA to maximise opportunities in energy efficiency and renewable energy in the current operating environment, and with constrained government finances.

In looking at these opportunities, EECA has understood the need to focus on programmes based on influencing and information and to achieve greater leverage from every government dollar through partnership and co-funding.

Other key elements of the ODP, essential to successful delivery, are:

- building a cohesive leadership team
- establishing real clarity among those leaders of EECA's operating model
- communicating that clarity to everyone within the organization
- putting in place just enough structure to reinforce that clarity going forward.

Success in these four areas will ensure EECA will:

- deliver more in less time
- increase its ability to attract and retain the best people
- seize opportunities wisely, identify problems earlier and solve them faster.

The ODP has been guided by, and tested against, the Government's Performance Improvement Framework (PIF). EECA will use the PIF to undertake a high-level assessment of its effectiveness in delivering on the ODP in the last quarter of 2014/15.

A GREATER FOCUS ON  
**INFLUENCING  
 AND INFORMATION  
 THROUGH STRATEGIC  
 PARTNERSHIPS  
 IN THE RESIDENTIAL,  
 BUSINESS  
 AND TRANSPORT SECTORS**

## Good employer obligations

EECA values being a good employer, and the principles of equal opportunity are embedded in EECA's recruitment and employment policies and procedures. Under EECA's Equal Employee Opportunity practices all staff members are treated on merit. EECA is focused on the development and recognition of staff capability, along with a commitment to organisational health.

## Working in partnership

There are significant opportunities to enhance delivery of EECA's strategic objectives through partnering with key agencies to leverage their participation in the residential, transport and business markets. Effective working relationships, and adequate partner capability and capacity to successfully deliver, are critical.

EECA works closely with partners and other stakeholders to manage relationships.

## Risk management

EECA has developed a robust management framework to manage risk over the short, medium and

long term. EECA works closely with partners and other stakeholders to reduce risk; for example, to enhance the capability and capacity in the sector for delivery and alignment to EECA programmes.

The Board and management have responsibilities under health and safety legislation and stay informed of the changes in this area. An independent review of EECA's health and safety planning, systems and delivery, monitoring and resourcing was completed in late 2013. It concluded that good processes are in place for emergency response, opportunities for employee involvement and support, and that human resources, managers and health and safety representatives are all taking steps to provide for the health and safety of staff members.

Management regularly reports to the Board on both the effectiveness of EECA's Health and Safety programme and the implications for EECA of relevant legislation.

The EECA Board's Risk and Audit Committee monitors the quality and integrity of the financial control environment, including managing the relationship with the external auditor. It also considers whether appropriate governance, policies and operating processes are in place to identify and manage risk, and oversees and assesses the internal audit process.



Energy Efficiency and  
Conservation Authority  
Te Tari Tiaki Pūngao

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