NEW ZEALAND

ENERGY EFFICIENCY GOALS

1. GOVERNMENT POLICY ON ENERGY EFFICIENCY

New Zealand has a long history of supporting energy efficiency and in 2000 parliament passed the Energy Efficiency and Conservation Act to promote energy efficiency, energy conservation, and renewable energy in New Zealand. The act can be found at:

www.legislation.govt.nz/act/public/2000/0014/latest/whole.html#dlm54948

This act established the Energy Efficiency and Conservation Authority (EECA) as a government entity with the responsibility of promoting energy efficiency, energy conservation, and renewable energy across all sectors of the economy. The act gives the EECA powers to promote energy efficiency standards and labelling for appliances as well as the disclosure of information to compile statistics on energy efficiency, energy conservation, and renewable energy.

2. ENERGY EFFICIENCY STRATEGY

The New Zealand Energy Strategy 2011 – 2021, published in 2011, is the most comprehensive strategy about energy policies at the national level, including energy efficiency promotion. The New Zealand Energy Efficiency and Conservation Strategy (NZEECS) 2017–2022, announced in 2017 replaces the previous strategy that covered the 2011-2016 period.

The NZEECS are developed as a requirement of the Energy Efficiency and Conservation Act 2000 and is companion document to the New Zealand Energy Strategy (NZES). In it, the government outlines its policies and actions on energy efficiency, energy conservation, and renewable energy. It also gives effect to the energy efficiency, energy conservation, and renewable energy objectives set out in the NZES.

FUNDING

A wide range of sources provides funds for energy efficiency actions in New Zealand. This includes the government appropriation, a levy on electricity, and in special cases, charities and NGOs for specific programmes provides the funds for energy efficiency.

In the fiscal year 2013/14, NZD $89 million were allocated for the Energy Efficiency and Conservation Authority (EECA) in order to promote energy efficiency. This figure is revised on an annual basis.

LINKS

NZ Energy Strategy: https://www.mbie.govt.nz/info-services/sectors-industries/energy/documents-image-library/nz-energy-strategy-lr.pdf

Energy Efficiency Strategy: http://www.mbie.govt.nz/info-services/sectors-industries/energy/documents-image-library/NZEECS-2017-2022.pdf

3. ENERGY EFFICIENCY ACTION PLAN

New Zealand does not have an overarching Energy Efficiency Action Plan, but the NZEECS 2011 details objectives in different sectors, and the Energy Efficiency and Conservation Authority (EECA), in partnership with other government entities and the private sector, will develop programmes to address these objectives. EECA's work plan is the ongoing action plan.

FUNDING

As covered in section 2.

LINKS

Energy Efficiency Strategy: http://www.mbie.govt.nz/info-services/sectors-industries/energy/documents-image-library/NZEECS-2017-2022.pdf

4. ENERGY EFFICIENCY, INTENSITY OR EMISSIONS REDUCTION TARGETS

The New Zealand Government's economy-wide energy efficiency target is for New Zealand to continue to achieve a rate of energy intensity improvement of 1.3% per annum.

LINKS

Energy Efficiency Strategy: http://www.mbie.govt.nz/info-services/sectors-industries/energy/documents-image-library/NZEECS-2017-2022.pdf

5. SECTORAL ENERGY EFFICIENCY TARGETS

The latest NZEECS has three specific targets:

- Industry - Decrease in industrial emissions intensity of at least one per cent per annum on average between 2017 and 2022.
- Electric vehicles to make 2% of the vehicle fleet by the end of 2021.
- 90% of electricity will be generated from renewable sources by 2025.

These targets are embedded within a series of broader energy objectives in the economy:

- Businesses make energy efficient and renewable energy investments and adopt best practice energy management.
- Individuals, households and community institutions choose energy efficient technologies, adopt energy efficient behaviours and make greater use of renewable energy.
- The public sector demonstrates leadership by adopting greater energy efficiency and renewable energy.

The NZEECs also highlight shared responsibilities with partner agencies for the delivery on objectives. For example, energy efficiency in the transport sector will require the integral participation of the Ministry of Transport.

LINKS

Energy Efficiency Strategy: http://www.mbie.govt.nz/info-services/sectors-industries/energy/documents-image-library/NZEECS-2017-2022.pdf

6. LEAD ENERGY EFFICIENCY INSTITUTIONS

The Energy Efficiency and Conservation Authority (EECA), which was established in 2000, is the principal energy efficiency programme delivery agency.

INSTITUTIONAL SETTINGS AND RESPONSIBILITIES

EECA is a Crown entity, established under the Energy Efficiency and Conservation Act 2000 and subject to the Crown Entities Act 2004. EECA is governed by a chair and board members (up to a maximum of eight) who report to the Minister of Energy and Resources. The EECA acts as a policy maker, regulator, programme funder, and implementer.

EECA's function is to encourage, promote, and support energy efficiency, energy conservation, and the use of renewable energy sources in New Zealand. The EECA works closely with government operational and policy agencies in order to help them design, implement, and monitor policies related to energy efficiency.

STAFF AND BUDGET

In 2015-16, EECA had between 80 and 90 full time employees, and an estimated budget of NZD 54 mill.

BUDGET USE

The budget supports spending on employees, premises, and programme support.

LINKS

EECA: www.eeca.govt.nz

7. OTHER ENERGY EFFICIENCY AGENCIES

MBIE has the responsibility of providing high-level energy efficiency policy advice to the Minister of Energy and Resources and monitoring progress towards the NZEECS objectives.

The Ministry of Transport and the New Zealand Transport Agency are responsible for most of the transport-related energy efficiency initiatives with the exception of vehicle fuel-consumption labels (see Section 2.2.3 below). The EECA has a Memorandum of Understanding with the New Zealand Transport Agency regarding the management of fuel-consumption information.

Other agencies that share responsibility for energy efficiency include: the Ministry of Agriculture and Forestry (renewable fuels, industry), the Housing New Zealand Corporation (state housing improvement programmes), Standards New Zealand (for energy efficiency in products/equipment), and the Ministry of Foreign Affairs and

Trade (WTO, mutual recognition arrangements, APEC forums, etc.). The New Zealand government also works closely with the Australian Government on product and appliance standards and labelling.

There are 17 regional government authorities (11 regional councils and six unitary councils) in New Zealand. Each regional council is required to produce a "regional policy statement" that covers all natural resources, including energy. The NZEECS must be taken into consideration in the preparation of regional policy statements. Land transport strategies must also be consistent with the NZEECS.

LINKS

Ministry of Transport: http://www.transport.govt.nz/

New Zealand Transport Agency: http://www.nzta.govt.nz/

Ministry of Business, Innovation and Employment: http://www.mbie.govt.nz/

Ministry of Foreign Affairs and Trade: https://www.mfat.govt.nz/

Standards New Zealand: https://www.standards.govt.nz/

8. ENERGY EFFICIENCY INFORMATION DISSEMINATION

The EECA has a number of websites that host a several energy efficiency related portals, and links to other useful energy efficiency. EECA also sponsors a series of television commercials with basic energy efficiency information for a variety of stakeholders.

There are other portals hosted by other agencies, but these may change with time.

The New Zealand Government conducts quarterly surveys to monitor the public's awareness, willingness, and commitment to energy efficiency. Brand association and energy use behaviour change are also monitored. Survey results are published on a monthly and quarterly basis. The business sector also publishes case studies to promote energy technologies and behavioural changes in the industry.

LINKS

EECA Information websites:

www.eeca.govt.nz

www.energywise.govt.nz

www.eecabusiness.govt.nz

http://www.energywise.govt.nz/resource-centre/videos/

9. ENERGY EFFICIENCY AWARENESS RAISING

Information about energy efficiency is provided to New Zealanders through a number of channels, the main mechanisms of which include the following websites that focus on EECA's three distinct audiences (i.e., people at home, businesses, and our corporate stakeholders):

- EECA (corporate website): www.eeca.govt.nz
- ENERGYWISE (consumer-focused website): www.energywise.govt.nz
- EECA Business (all businesses): www.eecabusiness.govt.nz

Another avenue for the provision of information is a number of television commercial spots called the Energy Spot cover topics such as hot water wastage, energy-efficient renovation, saving fuel in business, and choosing efficient lighting. There are currently more than 30 episodes available for viewing at: http://www.energywise.govt.nz/resource-centre/videos/

Mandatory labelling of appliances and vehicles (including second-hand vehicles) plus voluntary labelling, i.e., Energy Star.

Finally, the EECA Awards (held every two years) celebrate and promote energy efficiency practices in communities, businesses, and industries. This programme provides an award in a number of categories that enable companies can then capitalise on by using the award in their branding. This includes a wide range of marketing and advertising campaigns for print, radio, and TV.

LINKS

EECA: www.eeca.govt.nz

Energy Efficiency information: www.energywise.govt.nz

Energy efficiency information for business: www.eecabusiness.govt.nz

Energy spot: http://www.energywise.govt.nz/resource-centre/videos/

10.GOVERNMENT SUPPORTED ENERGY EFFICIENCY TRAINING

Under the "Warm Up New Zealand: Heat Smart" and "Warm Up New Zealand: Healthy Homes" programmes, service providers have been required by the EECA to provide proof that they have the internal capacity and capability to deliver the programmes and meet the required standards. Applicants are assessed on these criteria by an independent evaluation panel that makes annual reviews to ensure that they have the ongoing capacity to deliver the programme while meeting the standards.

The EECA financially supports the Insulation Association of New Zealand (IAONZ), which has developed a four-stage training module for insulation installers.

LINKS

EEVA Training: https://www.energywise.govt.nz/funding-and-support/free-insulation-and-installation-support

11. PRIVATELY OPERATED TRAINING

Universities and technical institutes, mostly as part of wider engineering courses, have traditionally delivered capacity-building interventions in the business sector. More recently, the focus has intensified on developing specific energy management training in the following areas of high-economic potential:

- Commercial buildings: Courses are in place to improve electricity management and efficiency in the commercial building services industry (targeting energy specialists, facilities managers, and commercial property values). Courses are delivered by the Energy Management Association New Zealand (EMANZ), which is an industry association of energy management experts, including energy auditors, energy managers, and suppliers of energy-efficient products and services.
- Industrial sector: The University of Waikato provides training and accreditation programmes in energy efficiency for pumps, fans, and compressed-air systems.
- Transport: The EECA's Heavy Vehicle Fuel Efficiency Programme is designed (among other things) to improve the fuel efficiency of heavy-vehicle fleets through expert advice and driver training. The EECA trains independent and in-company fuel advisors and trainers.

LINKS

Energy Management Association of New Zealand: http://www.emanz.org.nz/

12. GOVERNMENT SUPPORTED RESEARCH & DEVELOPMENT

The lead agency for the government's policy on research and development is the Science, Skills, and Innovation Division of the Ministry of Business, Innovation and Employment (MBIE). It includes the mandate to transform New Zealand by driving science and innovation to improve the economic, environmental, and innovation sectors.

The EECA Business Programme is designed to overcome market barriers across the three groups related to the scale of energy use, and to that end, it includes the following capability initiatives: training and accreditation programmes for service providers and training programmes for end-users and key influencers.

EECA also administers an internal research programme that focuses on the following areas:

- Better information – energy-efficient technology research.
- Research energy end-use in industrial, commercial, and residential buildings.
- Primary production and manufacturing sector energy end-use research.
- Macro-economic modelling of energy efficiency potentials.
- Behaviour change research and understanding end-user service needs.

LINKS

EECA Business: www.eecabusiness.govt.nz

ENERGY EFFICIENCY MEASURES

13. COLLECTION AND MONITORING OF ENERGY EFFICIENCY OUTCOMES

Energy efficiency in New Zealand is not systematically monitored, but the Energy Efficiency Conservation Authority (EECA) carries out periodic sectoral analysis to understand the cost-benefit of efficiency opportunities. EECA also carries out quarterly market research on the awareness of energy efficiency and the awareness of the EECA brand and its different initiatives.

Similarly, EECA monitors the results of its Standards and Labelling programme through the collection of sales data from major retailers and manufacturers.

LEGAL POWER

The Standards and labelling law that is part of the EECA law enables the authority to compel retailers and manufacturers to provide sales and product detail data. This is part of the Monitoring, Verification, and Enforcement (MVE) of the programme.

Statistics New Zealand has the power to collect any information through official collections, although no energy efficiency analysis is undertaken through this process.

The Ministry of Business, Innovation, and Employment can compel data from major energy suppliers, but this is mostly used for supply side statistics rather than efficiency.

LINKS

Not applicable.

14. EVALUATION OF ENERGY EFFICIENCY PROGRESS OR POTENTIAL

No regular comprehensive evaluation of potential is carried out.

15. SELF-EVALUATION OF ENERGY EFFICIENCY PROGRAMMES

EECA reports on the progress of its projects to the Minister of Energy and Resources. However, there are no comprehensive evaluations carried out.

16. CROSS-SECTOR ENERGY EFFICIENCY INITIATIVES

Energy Efficiency (Energy Using Products) Regulations 2002

OBJECTIVE

To reduce energy demand, enhance economic growth through improved productivity, provide savings to end-users by improving the energy efficiency of a product class. This will be achieved through setting MEPS that result in improvements to the most energy-intensive models for sale in a product class and category, and requirements to display energy performance labels. The programme stimulates the production and purchase of more energy-efficient products, while ensuring that a wide range of products are available to meet consumers'

needs. It is a joint Australia-New Zealand programme that offers industries in both economies improved economies of scale and reduced business-compliance costs.

OUTLINE

Energy Efficiency (Energy Using Products) Regulations were first published in 2002. The New Zealand Government entered into the Equipment Energy Efficiency Programme (E3) with Australia in 2004-05. MEPS and labelling are the main mechanisms that the E3 uses to improve product efficiency in which requirements are set out in energy performance standards. The standards set out the testing method to establish a product's energy performance and consumption. All covered products must meet or exceed this standard before they can be sold to consumers. The E3 jointly funds the following:

- The profiling of products and technologies on the market, and assessments of their energy efficiency potential.
- Cost-benefit analysis of options for intervention.
- Consultation documents and regulatory impact statements.
- Development and publication of joint Australia/New Zealand standards.
- Compliance testing of products.
- Marketing and communications.

Labelling is mandatory for the following electrical products for sale in New Zealand:

- Refrigerators and freezers.
- Clothes washers.
- Clothes dryers.
- Dishwashers.
- Air conditioners.
- TVs.
- Monitors.

The plan also identifies other products for investigation or review, including electric and heat pump water heaters; solar water heaters; residential, commercial, and LED lighting; commercial air conditioners; commercial and household refrigeration; and three-phase motors.

LINKS

MEPS Legislation: http://www.legislation.govt.nz/regulation/public/2002/0009/latest/DLM108730.html

Crown Energy Efficiency Loan Scheme

OBJECTIVE

The EECA-administered Crown loans scheme supports capital investment for public sector agencies.

OUTLINE

The scheme, introduced in 1989, provides funds to government agencies in order to encourage investment in energy efficiency measures in their building, facilities, and vehicle fleets. The loans are repaid by the recipient department/agency over a calculated period. The enduring energy savings accrue to the recipient for the remaining life of the project or measure.

LINKS

Crown Loans: https://www.gets.govt.nz/EECA/ExternalTenderDetails.htm?id=4167882

Emissions Trading Scheme

OBJECTIVE

To provide and economic incentive to choose lower carbon energy options. This regularly translates into higher carbon options being more expensive than low carbon.

OUTLINE

The programme requires suppliers of energy to surrender carbon credits for each tonne of carbon in the energy they sell. The suppliers will transfer the costs to consumers through higher prices of energy. The carbon credits can be traded through a market and the price per credit is floating.

LINKS

Emissions Trading Scheme: http://www.mfe.govt.nz/climate-change/reducing-greenhouse-gas-emissions/new-zealand-emissions-trading-scheme

17. INDUSTRY ENERGY EFFICIENCY INITIATIVES

EECA Business Programme

OBJECTIVE

To support enhanced business competitiveness and lower CO2 emissions through the reduction of energy demand and/or conversion to renewable energy options.

OUTLINE

The EECA Business Programme is designed to overcome market barriers across three groups related to the scale of energy use:

- Top 200 energy users – the programme is for direct engagement with senior decision-makers to create long-term, company-wide energy management partnerships.

- Large energy users (1,000) – where engagement is led by accredited service providers, industry associations, and sector groups.
- Medium and small energy users (200,000+) – where targeted EECA information campaigns are used to influence change.

The programme ensures that the right combination of information, incentives, and standards are in place, and targets priority sectors in which there is the potential for energy-efficient improvements (e.g., meat and dairy, pulp and paper, and commercial buildings). The components of the programme include the following: information and influencing, capability initiatives, information initiatives, co-funding energy audits, commercial building design advice, NABERSNZ (National Australia Building Energy Rating Scheme: New Zealand), industrial energy efficiency improvements, and demonstration projects and feasibility funding.

LINKS

EECA Business: https://www.eecabusiness.govt.nz/

18. TRANSPORT ENERGY EFFICIENCY INITIATIVES

Vehicle Fuel Economy Labelling

OBJECTIVE

To achieve reductions in fossil fuel demand and emissions, and savings to end-users by improving the average fuel efficiency of the vehicle fleet.

OUTLINE

The Energy Efficiency (Vehicle Fuel Economy Labelling) Regulations were first published in 2007. The Vehicle Fuel Economy Labelling scheme came into effect in April 2008, which made it compulsory for vehicle traders and online vendors to display information about the fuel economy of their vehicles. The aim of the programme is to allow consumers to make more informed decisions when purchasing a vehicle, and place appropriate values on fuel economy. In addition, it allows consumers to consider the effect that fuel efficiency will have on the environment and their fuel costs. This is designed to stimulate the supply and purchase of more fuel-efficient vehicles. The regulations also require that fuel-economy information labels be displayed on all new and used passenger vehicles (manufactured after 2000) at the point of sale, if the information is available. The seller should use the information provided on the vehicle fuel-economy label generator page (see http://www.eeca.govt.nz/vehicle-fuel-economy-labels/label-generator#970). These regulations apply to any vehicle sold by a motor vehicle trader or on Internet trading websites. The fuel economy information is expressed as follows:

- Fuel economy cost per year.
- Fuel economy rating out of six stars.
- Fuel economy litres per 100 km.

LINKS

Vehicle Labelling: https://www.energywise.govt.nz/energy-labels/vehicle-fuel-economy-labels/

Heavy Vehicle Fuel Efficiency Programme

OBJECTIVE

To improve the efficiency of the heavy-vehicle fleet.

OUTLINE

The Heavy Vehicle Fuel Efficiency Programme, which started in 2012, helps heavy-vehicle fleets to develop systems and disciplines that save fuel, reduce CO2 emissions, and leads to greater road safety. The focus of the programme is on working alongside fleet managers to put fuel management action plans in place. This involves driver behaviour change, vehicle selection, and better management systems. Realistic fuel savings of approximately 7% per fleet are possible, especially when company management demonstrates strong leadership.

LINKS

EECA: https://www.eecabusiness.govt.nz/sectors/transport/fleet-management/

Electric Vehicle Promotion Programme

OBJECTIVE

The government has identified electric transportation as an important opportunity for New Zealand. The aim of this programme is to increase the deployment of electric vehicles.

OUTLINE

The programme consist of a number of measures to promote electric vehicles including economic measures as well as preferential treatment measures. These include tax exemptions, promote electric vehicles to commercial fleet purchasers, and a contestable fund to promote and support low carbon transport options.

LINKS

Ministry of Transport: http://www.transport.govt.nz/ourwork/climatechange/electric-vehicles/

19. BUILDING ENERGY EFFICIENCY INITIATIVES

Energy Star

OBJECTIVE

To achieve reductions in energy demand and energy-related greenhouse gas emissions as well as savings to end-users through the uptake, demand, and marketability of high-efficiency products.

OUTLINE

The Energy Star concept was developed by the U.S. Environmental Protection Agency in 1992 as a voluntary labelling programme designed to promote energy-efficient products and reduce greenhouse gas emissions. It provides an independent endorsement mark for high-efficiency products that can be used by industry/retail partners in product labelling, promotional materials, and advertising.

Energy Star was launched in New Zealand in 2005, and by 2015, coverage had been extended to 20 product categories, including white ware, windows, home electronics, office equipment, air conditioners (heat pumps), solar water heating, and different types of lighting.

LINKS

Energy Star: https://www.eeca.govt.nz/standards-ratings-and-labels/energy-star/

NABERS New Zealand

OBJECTIVE

Improve energy performance in commercial buildings

OUTLINE

In May 2013, EECA Business, in collaboration with the New Zealand Green Building Council (NZGBC), launched a scheme to measure and rate the energy performance of commercial buildings in New Zealand. The New Zealand scheme, NABERSNZ, is based on the successful National Australian Built Environment Rating System (NABERS). NABERSNZ is a voluntary scheme that aims to assist owners and tenants to reduce energy use and costs as well as reduce greenhouse emissions. Under NABERSNZ, qualified assessors measure and score the energy performance of office buildings, giving tenants and owners rating of up to six stars.

Since the inception of the programme, nearly 600 self-assessments have been completed and 29 certified ratings have been processed. In 2014/15, 14 certified ratings were processed.

LINKS

NABERS NZ: https://www.nabersnz.govt.nz/

Warm Up New Zealand: Healthy Homes

OBJECTIVE

To improve energy efficiency in the residential sector, and improve the health of people living in cold, damp houses by targeting low-income households for home insulation, particularly families with children and individuals with high health needs.

OUTLINE

In May 2013, the government announced an investment of NZD 100 million to insulate 46,000 homes through a new three-year insulation programme. This programme targeted low-income households, particularly those with children, the elderly, and those at high risk of developing cold-related illnesses. Unlike its predecessor, Warm Up New Zealand: Heat Smart, the new programme does not provide any funding to general-income households or for clean-heating devices. The government's investment of up to 60% of the cost of a home's insulation is augmented by significant levels of funding from trusts and other third parties. This makes insulation available to those households in most need, at low or no cost.

As of September 2015, 41,000 houses had been insulated under the programme.

LINKS

Warm Up NZ HH: https://www.energywise.govt.nz/funding-and-support/funding-for-insulation/

Efficient Lighting/The Right Light Programme

OBJECTIVE

To encourage the uptake of efficient lighting technologies.

OUTLINE

The EECA's efficient lighting programme supports the Right Light information and capability-building programme.

LINKS

Right Light: https://www.energywise.govt.nz/at-home/lighting/choosing-the-right-energy-efficient-bulb/

20.ENERGY EFFICIENCY COOPERATION

COOPERATION AGREEMENTS WITH OTHER ECONOMIES OR ORGANISATIONS

MBIE and EECA work closely with the following government organisations: the Ministry of Health; the Ministry of Social Development; the Ministry for the Environment; the Ministry of Transport; the Ministry of Agriculture and Forestry; Housing New Zealand; and Statistics New Zealand. The EECA also works closely with local government and district health boards.

In general, non-government organisations (NGOs) and community energy groups in New Zealand have sufficient knowledge and awareness of energy efficiency improvement programmes implemented by the central government under the NZEECS. NGOs have also established partnerships with central agencies to realise the goals of the NZEECS in certain areas. The central government agencies have been providing financial and technical support to local governments in implementing energy efficiency and renewable programmes. Local governments are currently focused on energy efficiency improvement efforts to lower or maintain their energy expenditures, while NGOs are focused on alleviating fuel poverty and improving health outcomes among lower-income families. Through the EECA, NGOs, community and energy groups are implementing the Warm Up New Zealand: Healthy Homes programme and using local networks to assist in reaching more participants.

BILATERAL, REGIONAL OR MULTILATERAL COOPERATION AGREEMENTS

The New Zealand Government cooperates with other economies and New Zealand agencies on energy efficiency, which include the following:

- The Australian Department of Resources, Energy, and Tourism (DRET) and Australian State Regulators (through the E3 committee) to set joint standards and regulatory requirements for appliances and equipment.
- APEC and International Energy Agency (IEA) membership and forums.

- Energy Regulators Advisory Council (Australia and New Zealand) to align regulations for energy-using products such as gas/electrical safety and radio spectrum management.
- The Commonwealth Scientific and Industrial Research Organisation (CSIRO, Australia).
- Regulators' Forum.
- The World Trade Organisation (WTO) Technical Barriers to Trade (TBT) notification.

LINKS

No Links provided.

21. OTHER ENERGY EFFICIENCY EFFORTS

No information provided.