

AUSTRALIA

1. GOALS FOR EFFICIENCY IMPROVEMENT

1.1. Overall Energy Efficiency Improvement Goals

Australia's proposed emissions trading scheme (the Carbon Pollution Reduction Scheme—CPRS) will establish a carbon pollution reduction goal. In addition, there are a number of complementary measures aimed at improving the energy efficiency of the economy.

1.2. Sectoral Energy Efficiency Improvement Goals

Australia has carbon pollution goals and, as such, there are no plans to implement sectoral targets.

1.3. Action Plans for Promoting Energy Efficiency

The National Strategy on Energy Efficiency (NSEE) is the overarching program of work for promoting energy efficiency in Australia. Details can be found at www.coag.gov.au/coag_meeting_outcomes/2009-07-02/docs/Energy_efficiency_measures_table.pdf

a) Objectives

The NSEE is a coordinated, comprehensive approach to energy efficiency in Australia to accelerate energy efficiency efforts across all governments, and to help households and businesses reduce their energy costs. The NSEE addresses barriers that prevent the optimal uptake of energy efficient opportunities, such as split incentives and information failures.

The NSEE incorporates and builds on measures already agreed by the Council of Australian Governments (COAG) and the Ministerial Council on Energy through the National Framework on Energy Efficiency (NFEE). While the NSEE does not set any overall targets, it aims to accelerate energy efficiency efforts, streamline roles and responsibilities across levels of governments, and facilitate the adoption of more efficient and innovative practices by ensuring that businesses and households are able to make informed decisions about investments in energy efficiency.

b) Applicable sectors

The NSEE outlines detailed energy efficiency measures and plans to implement them under:

- Industry and business
- Skills and training
- Advice and education
- Data
- Electricity markets
- Appliances and equipment
- Transport
- Buildings standards
- Commercial building sector
- Residential building sector
- Government working in partnership and leading the way.

c) Outline

The NSEE was agreed to by the Council of Australian Governments in July 2009. It is a 10-year strategy to deliver a consistent and cooperative approach to energy efficiency. Measures include:

- Assistance to households to reduce energy use through the provision of information and advice, financial assistance and demonstration programs
- Assistance to business and industry to obtain the knowledge, skills and capacity to pursue cost effective energy efficiency opportunities
- Higher energy efficiency standards to increase the number of highly energy efficient homes and buildings, and the provision of a clear roadmap to assist Australia's residential and commercial building sector in adapting to these standards
- Consistent economy-wide energy efficiency standards for appliances and equipment and a process to enable industry to adjust to increasingly stringent standards over time
- Addressing potential regulatory impediments to the uptake of innovative demand-side initiatives and smart grid technologies
- Governments working in partnership to improve the energy efficiency of their own buildings and operations
- A detailed assessment of possible vehicle efficiency measures, such as CO₂ emission standards.

One of the measures under the NSEE is the Energy Efficiency Data Project (EEDP), which aims to improve the evidence base for the development and evaluation of policies for energy efficiency.

d) Financial resources and budget allocation

Funding of AUD 88.3 million over four years (2009-10 to 2013-14)

e) Method for monitoring and measuring effects of action plans

See answer for NFEE (below).

f) Expected results

The expected energy and greenhouse gas emissions savings for appliances and equipment to 2020 (under the E3 MEPS and labelling program) is outlined in the report *Prevention is Cheaper than Cure - Avoiding Carbon Emissions through Energy Efficiency - Projected Impacts of the Equipment Energy Efficiency Program to 2020*. The report is available at www.energyrating.gov.au/library/details200901-projected-impacts.html.

g) Future tasks

No information available

Previous action plans for promoting energy efficiency

The National Framework for Energy Efficiency (NFEE) was the previous arrangement for cooperation on energy efficiency actions in Australia. All NFEE projects and activities now form part of the NSEE.

a) Objectives

The NFEE aimed to take advantage of the economic potential associated with increased uptake of energy efficient technologies and processes to help improve Australia's energy efficiency performance to reduce energy demand and lower greenhouse gas emissions.

b) Applicable sectors

Stage One of the NFEE was adopted in 2004 and is still ongoing. It contains a comprehensive set of measures that cover the residential, commercial and industrial sectors. Stage Two of the NFEE commenced in July 2008.

c) Outline

Stage One of the NFEE consisted of nine policy packages including:

- *Residential buildings*: consistent economy-wide minimum energy efficiency design standards for new buildings and renovations and mandatory disclosure of the energy performance of homes for sale or lease
- *Commercial buildings*: consistent economy-wide minimum energy efficiency design standards for new and refurbished buildings and mandatory disclosure of the energy performance at the time of sale or lease
- *Commercial/industrial energy efficiency*: mandatory energy assessments and public reporting for large energy users (the Energy Efficiency Opportunities program) and coordinated training and accreditation for energy auditors and energy performance contractors
- *Government energy efficiency*: development of consistent standards for measuring and reporting on government energy efficiency programs, introduction of public annual reporting on energy use and progress towards targets by government agencies in all jurisdictions, and the development of best practice models for government agencies to implement energy efficiency programs
- *Appliance and equipment energy efficiency*: broadening the scope of the National Appliance and Equipment Energy Efficiency Program (NAEEEP) through the introduction of mandatory Minimum Energy Performance Standards (MEPS) and introducing new or more stringent MEPS for residential, commercial and industrial products
- *Trade and professional training and accreditation*: undertaking a coordinated effort to integrate energy efficiency concepts into training courses in key professions that influence energy efficiency outcomes, and development of training and accreditation courses for practising tradespersons
- *Commercial/industrial sector capacity building*: development of a coordinated program to generate examples of energy efficient equipment or processes in key industrial sectors and new or refurbished commercial buildings, link industry and government to key centres for energy efficiency research and development, and establish coordinated energy efficiency best practice networks
- *General consumer awareness*: provision of benchmark data on energy bills, development of a coordinated network to facilitate easy and timely access to information, targeted promotional campaigns and the integration of energy efficiency concepts into the school curriculum
- *Finance sector awareness*: raising awareness of the opportunities for and benefits of investment in energy efficiency and the provision of tools to assist in the valuation and risk assessment of proposals.

Stage Two of the NFEE added another five packages, including:

- Expanding and enhancing the Minimum Energy Performance Standards program
- The Heating, Ventilation and Air Conditioning (HVAC) high efficiency systems strategy
- The phase-out of inefficient incandescent lighting
- Government leadership through green leases
- Development of measures for an Australian hot water strategy, for later consideration.

Examples of action that has been taken under Stage Two include:

- *Appliances*: MEPS and energy labelling continued to be developed and implemented through the Equipment Energy Efficiency (E3) Program. There are also plans to implement Greenhouse and Energy Minimum Standards (GEMS). Around 40 new products have been identified to be targeted for inclusion under MEPS by 2010–11, including some types of home entertainment and office equipment.

- *Lighting*: The Government is phasing out inefficient incandescent light bulbs over a number of years through the Minimum Energy Performance Standards (MEPS). The phase-out commenced with the implementation of an import prohibition on inefficient, traditional pear shaped incandescent bulbs on 1 February 2009, followed by a sales ban in November 2009. MEPS for Compact Fluorescent Lamps (CFLs) were also introduced in November 2009 to ensure that only high quality CFLs can be sold in Australia.
- *Buildings*: Work has commenced on the setting of minimum energy efficiency standards for new commercial and residential buildings and an investigation into the mandatory disclosure of commercial and residential building energy efficiency. The NSEE builds upon this work to include a range of measures to promote greater energy efficiency in buildings.

d) Financial resources and budget allocation

The budget for the packages of work under the second stage of the NFEE was AUD 6.21 million for 2008–09 and AUD 9.96 million for 2009–10. Resourcing to implement the Stage Two measures are met separately by the relevant jurisdictions.

e) Method for monitoring and measuring effects of action plans

Surveys, statistic compilation, end-use information, monitoring and trend analysis are all undertaken, and databases are maintained to assist in program evaluation, meeting international reporting obligations and policy formation.

There are a number of agencies that are responsible for energy efficiency monitoring and reporting.

- The Australian Bureau of Statistics collects and publishes a wide range of energy use and related statistics.
- The Department of Resources, Energy and Tourism (RET) administers the Energy Efficiency Opportunities (EEO) program under which companies report a range of energy use and energy efficiency information to the government.
- RET commissions work on industrial energy intensity (undertaken by the Australian Bureau of Agricultural and Resource Economics—ABARE). The most recent report is ‘End use energy intensity in the Australian economy’ published in 2009. ABARE also prepares the ‘Australian Energy Statistics’ on behalf of RET.
- The Department of Climate Change and Energy Efficiency (DCCEE), on behalf of the E3 Program, monitors and reports information through its ‘Energy Use in the Australian Residential Sector 1986–2020’ report. The report is the second economy-wide baseline study on residential energy use. It includes private residential dwellings, both those that are separate, such as single detached family homes, and attached, such as townhouses or apartments. The modelling incorporates Australian energy policy programs in place or finalised by mid-2007.
- DCCEE is responsible for the analysis of the projected effects of the Equipment Energy Efficiency Program over the period 2000–2020. Results have been published in the report: ‘Prevention is Cheaper than Cure—Avoiding Carbon Emissions through Energy Efficiency, Projected Impacts of the Equipment Energy Efficiency Program to 2020’.
- DCCEE also administers the National Greenhouse and Energy Reporting Scheme (NGERS). NGERS commenced in 2009–10. It will be mandatory for all companies that use more than 0.1 petajoules a year to report on their energy consumption and greenhouse gas emissions.

f) Expected results

See answer for Energy Efficiency Opportunities (below).

g) Future tasks

The National Strategy for Energy Efficiency (NSEE) provides specific actions for promoting energy efficiency (see above) over the coming years.

1.4. Institutional Structure**a) Name of organisation**

The Australian Constitution divides legislative powers between the federal and state governments. As such, policy responsibility for energy efficiency actions varies between the levels of government.

At the federal level, direct responsibility for energy efficiency is split between two departments. RET is responsible for policy and programs pertaining to industrial energy efficiency. DCCEE is responsible for other sectors including residential and commercial energy efficiency. A number of other government agencies have sectoral interests in energy efficiency including the Department of Infrastructure, Transport, Regional Development and Local Government (DITRDLG) and the Department of Innovation, Industry, Science and Research (DIISR). Activities at the federal level are synergised through the usual channels that facilitate liaison between relevant departments and ministers. The NSEE is the main mechanism for coordinating energy efficiency policy, with reports on the progress of activities being provided to COAG by the Senior Officials Group on Energy Efficiency (SOG-EE).

At the state/territory level, there is a range of institutional structures. The following agencies are responsible for energy efficiency:

- New South Wales: Department of Environment, Climate Change and Water
- Northern Territory: Department of Resources - Primary Industry, Fisheries and Resources
- Queensland: Department of Employment, Economic Development and Innovation—Mines and Energy—Office of Clean Energy
- South Australia: Department for Transport, Energy and Infrastructure and the Essential Services Commission of South Australia
- Tasmania: Department of Infrastructure, Energy and Resources
- Victoria: Department of Primary Industries, Sustainability Victoria and the Essential Services Commission
- Western Australia: Office of Energy.

The Ministerial Council on Energy is comprised of all federal and state and territory energy ministers. A subcommittee of officials, the energy efficiency working group, facilitates inter-jurisdictional cooperation on energy efficiency.

b) Status of organisation

All agencies report to the relevant federal or state government minister.

c) Roles and responsibilities

Vary across departments.

d) Covered sectors

All sectors of the economy are covered.

e) Established date

No information available

f) Number of staff members

No information available

1.5. Information Dissemination, Awareness-raising and Capacity-building

a) Information collection and dissemination

A wide range of information is readily available to Australian energy consumers. For example, the Energy Efficiency Exchange (EEX) website developed under the NFEE is a public source of information on industrial energy efficiency. There are also a number of websites containing information on ways to improve residential and building energy efficiency. For the transport sector, the Green Vehicle Guide provides model specific information on the emissions performance and fuel consumption of all vehicles produced since 2004.

b) Awareness-raising

There is no economy-wide general energy efficiency awareness-raising program, although awareness campaigns may be undertaken with specific initiatives such as the phasing out of inefficient incandescent lighting. Some states have awareness-raising campaigns.

c) Capacity-building

A Long-Term Training Strategy for the Development of Energy Efficiency Assessment Skills is being developed under the NFEE, which has proposed options to address skills shortages of energy efficiency assessors and auditors. Measures are being developed to assist in the supply of energy efficiency audit and advisory services in the short to medium term.

A transitional plumber training program is also being developed and delivered in support of the phase-out of greenhouse intensive water heaters under the NFEE.

The NSEE outlines plans to develop a National Energy Efficiency Skills Initiative (NEESI). The NEESI will build on the existing processes under the NFEE to ensure that Australia will have the skills and knowledge required to move to a low-carbon economy.

The Energy Efficiency Opportunities program engages in significant capacity building activities that reach companies using 45 per cent of Australia's energy end use and a range of energy services providers, providing advice, producing guidance materials, case studies, and holding annual workshops.

1.6. Research and Development in Energy Efficiency and Conservation

In general, Australia has a technology-neutral approach to research and development funding. Researchers with energy efficiency related projects must compete with other projects for funding. However, there are a number of programs that encourage research and development in energy efficiency.

The Australian government has allocated AUD 240 million over four years to establish *Clean Business Australia*, which will support a range of activities aimed at improving energy and water efficiency and increasing sustainability, with a focus on productivity and innovation. This program is administered by the Australian Government Department of Innovation, Industry, Science and Research and is comprised of three elements—climate ready, retooling for climate change and the green building fund.

The *Clean Business Australia—Climate Ready* program allocates grants ranging between AUD 50 000 to AUD 5 000 000 to small and medium-sized Australian businesses to undertake research and development, proof of concept and early-stage commercialisation projects in order to develop new technologies and services responding to climate change. A total of AUD 75 million in grants has been allocated. It is anticipated that the resulting research and development will lead to improved water recycling, waste recovery, reduced energy consumption, improved information systems and green building materials.

The *Clean Business Australia—Retooling for Climate Change* program is designed to support small and medium-sized Australian manufacturers to reduce their environmental footprint by improving the energy and/or water efficiency of one or more production processes. Grants

ranging between AUD 10 000 to AUD 500 000 to cover a maximum of half the project cost totalling AUD 75 million are expected to be allocated over four years commencing 2008-09. It is expected that this investment will result in improved efficiency in manufacturing processes leading to reduced energy and water consumption and associated greenhouse gas production.

The *Clean Business Australia—Green Building Fund* aims to support owners of commercial office buildings in retrofitting existing buildings to improve energy efficiency and reduce greenhouse gas emissions. Grants are allocated through two activity streams. Stream A allocates grants ranging between AUD 50 000 to AUD 500 000 to cover a maximum of half the project cost to assist owners of existing commercial buildings in retrofitting their buildings. Stream B allocates grants of up to AUD 200 000 for up to 50% of project costs to industry associations to develop the knowledge, skills and capacity of those who operate commercial buildings, improve energy efficiency, and reduce greenhouse gas emissions. A total of AUD 90 million has been allocated to the program.

The Australian Government's *Green Car Innovation Fund* is also administered by the Australian Government Department of Innovation, Industry, Science and Research. The fund is designed to encourage the Australian automotive industry to develop and manufacture low-emission vehicles. The fund of AUD 1.3 billion allocated over ten years starting 2009–10 is provided to industry on a one dollar to three dollar basis, that is, industry must provide three dollars for every dollar provided by the government.

Research on energy efficiency is a major component for energy efficiency improvement in Australia and is carried out through federal and state government networks. Funding mechanisms and involvement with the private sector are conducted on a need-only basis. States and territories also have a number of demonstration programs for business and energy efficiency.

2. MEASURES FOR ENERGY EFFICIENCY IMPROVEMENTS

2.1. Government Laws, Decrees, Acts

a) Name

Energy Efficiency Opportunities Act 2006 (EEO)

b) Purpose

The EEO is designed to result in improved identification and uptake of cost effective energy efficiency opportunities, improved productivity and reduced greenhouse gas emissions, and greater scrutiny of energy use by large energy consumers.

c) Applicable sectors

The EEO applies to all large energy users across all sectors. This mainly covers the industry, transport and commercial sectors.

d) Outline

Participation in EEO is mandatory for all businesses that use more than 0.5 petajoules of energy a year (equivalent to the energy used by approximately 10 000 households). The businesses (more than 225 as at 1 March 2010) registered for the program account for more than 60% of the total energy use of business and around 45% of all energy end-use in Australia.

The businesses registered for the EEO are required to carry out a comprehensive and rigorous energy assessment to identify efficiency opportunities with up to a four year payback. There is a rolling five year assessment cycle. Companies are supported with advice, capacity building workshops and guidance materials.

They are then required to submit an annual report to RET and to the public that identifies and reports on their implementation of cost effective energy saving opportunities. A number of these reports have gained media attention, highlighting the scrutiny from the Australian public on business actions relating to climate change. Companies also make a more detailed report to the Government approximately every three years.

Financial resources and budget allocation

AUD 16.9 million was allocated to the program from 2004–05 to 2008–09.

e) Expected results

Abatement and energy efficiency improvements from the program are significant. In their first reports at the end of 2008, participants reported identifying a total of 67.7 petajoules of potential cost effective annual savings that would yield AUD 736 million in annual financial benefits, and emissions reductions of 6.4 million tonnes of CO₂ equivalent emissions per year. Companies reported that they have implemented or have planned implementation of opportunities to save 41.6 petajoules per year, valued at AUD 503 million each year, and reduce greenhouse gas emissions by 3.9 million tonnes per year (0.7% of Australia's total 2006-07 emissions). Of the remaining potential opportunities, companies were continuing to investigate 24.2 petajoules per year worth of savings. Assessments are continuing and significant further savings opportunities are being reported. See www.energyefficiencyopportunities.gov.au to download a copy of the *First Opportunities Report*.

2.2. Regulatory Measures

2.2.1. Minimum Energy Performance Standards and Labelling

a) Name

Mandatory Minimum Energy Performance Standards (MEPS) and Labelling

b) Purpose

To specify mandatory requirements for the minimum energy performance standards and energy labelling of appliances, including offences and penalties for non-compliance. Further information is available at www.energyrating.gov.au.

c) Applicable sectors

Appliances, lighting and equipment in the residential, commercial and industry sectors

d) Outline

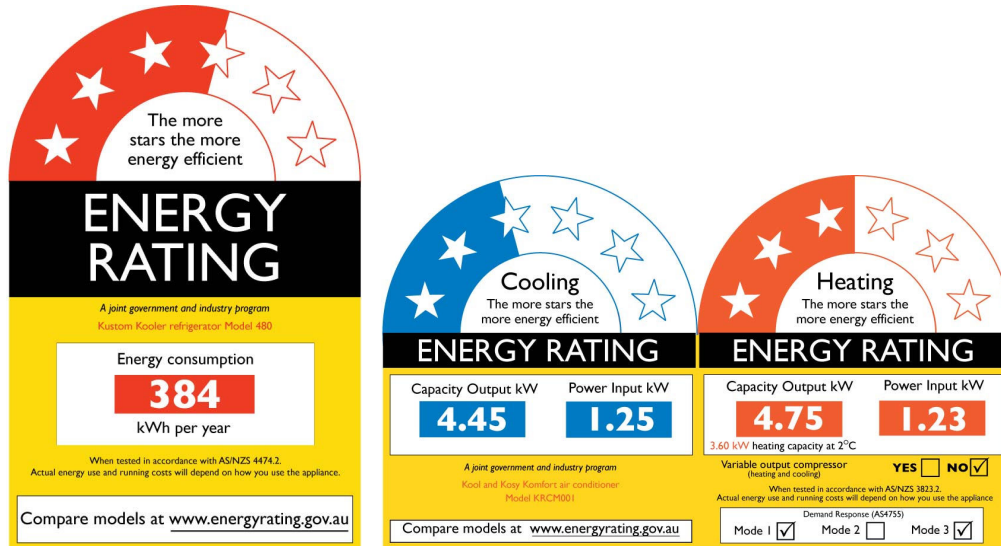
Mandatory MEPS and energy efficiency labelling are covered by the Equipment Energy Efficiency Program (E3), which is co-funded by the Australian Government, state and territory governments and the New Zealand Government. Products are included in the program based on whether the community would benefit from their regulation.

The establishment of MEPS and labelling requirements in Australia is a cooperative process between government and industry. Technical and economic analyses are undertaken in the development and negotiation of targets and timetables. MEPS, labelling and test method standards that are called up by regulation are Australian (in conjunction with New Zealand where appropriate) and are set to be the equivalent of world's best practice where possible.

The energy-rating label allows consumers to compare the energy efficiency of domestic appliances, thereby providing manufacturers with an incentive to continuously improve the energy performance of their appliances. The label has two main features. It rates the energy efficiency of an appliance on a scale of 1 to 10 stars or 1 to 6 stars (in half-star increments), the more stars the more efficient as it is compared with models of similar size and capacity. The label also displays an estimated energy consumption figure based on typical use of the appliance (usually kWh/year).

The star system is regularly re-graded to achieve a better spread in energy efficient products (taking into account improvements in energy efficiency that occur over time and to allow room for further improvement).

All manufacturers that produce or import appliances for the Australian market must submit their products to an approved testing agency.



Labelling is mandatory for the following electrical products offered for sale in Australia:

- Refrigerators and freezers
- Clothes washers
- Clothes dryers
- Dishwashers
- Air conditioners
- Televisions.

As of February 2010, the following products are also regulated on the basis of MEPS—this means that they have regulated minimum energy efficiency labels.

- Refrigerators and freezers (from 1 October 1999, revised 1 January 2005, revision proposed for 2010)
- Mains pressure electric storage water heaters (from 1 October 1999)
- Small mains pressure electric storage water heaters (<80L) and low pressure and heat exchanger types (from 1 October 2005)
- Three-phase electric motors (0.73kW to <185kW) (from 1 October 2001, revised April 2006)
- Single-phase air conditioners (from 1 October 2004, revised 1 April 2006 and 2007, revision proposed for 2010)
- Three-phase air conditioners up to 65kW cooling capacity (from 1 October 2001, revised 1 October 2007, revision proposed for 2010)
- Distribution transformers (from 1 October 2004)
- Ballasts for linear fluorescent lamps (from 1 March 2003). In addition to MEPS, ballasts also have to be marked with an energy efficiency index (EEI)
- Linear fluorescent lamps - from 550mm to 1500mm inclusive with a nominal lamp power >16W (from 1 October 2004)

- Commercial refrigeration (self-contained and remote systems) (from 1 October 2004)
- Incandescent lamps (from November 2009)
- Compact fluorescent lamps (from November 2009)
- External power supplies (from 1 December 2008)
- Set top boxes (from 1 December 2008)
- Televisions (from 1 October 2009)
- Commercial building chillers (from July 2009)
- Close control air conditioners (from July 2009)
- Transformers and electronic step-down converters for ELV lamps (proposed for October 2010).

2.2.2. Building Energy Codes

a) Name

Building Code of Australia (BCA)—Energy Efficiency Provisions

b) Purpose

The aim of the BCA—Energy Efficiency Provisions is to improve the energy efficiency of the design and construction of new buildings. The BCA Energy Efficiency Provisions project was endorsed under the NFREE. Details can be found at www.abcb.gov.au/.

c) Applicable sectors

Residential and commercial

d) Outline

Energy efficiency provisions for housing were first introduced in 2003 following an extensive consultation process. The provisions are produced and maintained by the Australian Building Codes Board (ABCB) on behalf of the Australian Government and state and territory governments (through COAG). The ‘deemed to satisfy’ provisions vary according to the climate zone in which the building will be located. The original provisions included: the ability of the roof, walls and floor to resist heat transfer; the resistance to heat flow and solar radiation of the glazing; the sealing of the house; the provision of air movement for free cooling, in terms of openings and breeze paths; and the insulation and sealing of air conditioning ductwork and hot water piping.

The provisions were developed to achieve a nominal level of energy efficiency equivalent to a 3.5 to 4 star rating under the Nationwide House Energy Rating Scheme (www.nathers.gov.au/). Following the implementation of the provisions, some states indicated that they wanted to increase the stringency of the provisions. As such, provisions were developed by the ABCB to increase the nominal level of energy efficiency equivalent to 5 stars under NATHERS. Enhanced housing provisions were introduced in 2006. The most significant changes were made to the provisions on building fabric and external glazing.

In April 2009, COAG requested that the ABCB develop more stringent provisions to allow for a 6 star home rating to be included in the 2010 BCA. The new proposals must be subject to a regulatory impact assessment (cost-benefit analysis) and be cost effective.

e) Financial resources and budget allocation

No information available

f) Expected results

No information available

2.2.3. Fuel Efficiency Standards

a) Name

Fuel consumption labelling standard (ADR81/02) and fuel consumption label

b) Purpose

Mandated fuel consumption labelling to enable new car purchasers to compare vehicles on a common basis and incorporate vehicle fuel use in their decision making. More information can be found at www.environment.gov.au/settlements/transport/fuelguide/label.html.

c) Applicable sectors

Transport

d) Outline

The fuel consumption labelling standard was introduced in 2004 (ADR81/01) and was subsequently updated in 2008 (ADR81/02). The standard requires all new vehicles up to 3.5 tonnes (which includes passenger cars, four wheel drive vehicles and light commercial vehicles) to display a model-specific removable fuel consumption label on the front windscreen.

The label indicates the fuel used (in litres) to travel 100 kilometres and the amount of CO₂ emissions (in grams) the vehicle emits for each kilometre travelled. The updated version of the label that took effect from October 2008 also displays figures for urban and extra-urban usage. The lower the numbers, the better the fuel efficiency and emissions of the vehicle.

Further measures are being developed under the NSEE.

e) Financial resources and budget allocation

No information available

f) Expected results

No information available

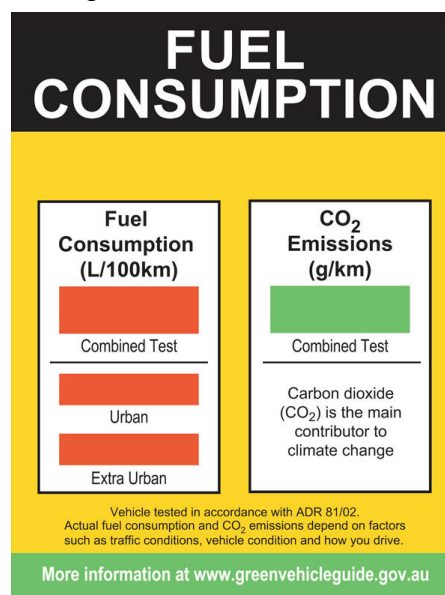
2.3. Voluntary Measures

Australia has a number of voluntary initiatives for improving energy efficiency. For example, the Australia Energy Star provides an international standard for energy efficient office equipment, including computers, printers and photocopiers, and home electronics, including televisions, audio products and DVD players. Products that display the Energy Star label have energy saving features enabled. See www.energystar.gov.au/ for more details.

In addition, the Australian Government and the Federal Chamber of Automotive Industries (FCAI) agreed to a voluntary average fuel consumption target in 2003. The aim of the target is to progressively improve fuel consumption of new passenger vehicles to average 6.8 litres per 100 kilometres by 2010 (around 162 grams CO₂ a kilometre). In 2005, the FCAI developed a new industry target of 222 grams CO₂ a kilometre by 2010. The revised target incorporates a broader range of vehicles—passenger, sports utility vehicles (SUVs), light trucks etc.—and fuels.

A number of other projects have been developed with the support of the Australian government such as:

- WERS—Window Energy Rating Scheme



- EDG—Environmental Design Guides
- Building Design Association of Australia (BDAA) Marketing Sustainable Design Workshops
- Australian Council of Building Design Professions (BDP) Making Energy Pay
- Housing Industry Association (HIA) Greensmart Professional Accreditation Course
- Master Builders Association (MBA) Energy Wise—Dollar Wise Training Course
- Lighting Best Practice Project
- WELS—Water Efficiency Labelling and Standards.

For details see www.environment.gov.au/settlements/energyefficiency/buildings/practices.html

2.4. Financial Measures Taken by the Government

2.4.1. Tax Scheme

Expenditure on capital equipment, which may improve energy efficiency, is generally deductible under capital allowance provisions. Beyond this, there is currently no specific concession for energy efficiency.

2.4.2. Low-Interest Loans

No information available

2.4.3. Subsidies and Budgetary Measures

There are a number of subsidies and budgetary measures for energy efficiency improvement programs at the federal and state levels. One example is provided below.

a) Name

Household Renewable Energy Bonus Scheme

b) Purpose

The Household Renewable Energy Bonus Scheme will assist households save money on power bills and reduce their carbon emissions.

c) Applicable sectors

Residential

d) Outline

Under the scheme households will be able to receive AUD 1000 rebates for ceiling installation and solar hot water systems and AUD 600 rebates for heat pumps systems.

The Government intends that the insulation component of the renewable energy bonus scheme come into operation by 1 June.

e) Expected results

The Government's objective is to see insulation installed in up to 1.9 million homes by 2011, including those already installed under the preceding home insulation program.

2.4.4. Other Incentives

The Australian Government provides a number of rebates to improve energy efficiency in the agriculture, transport, residential, commercial, power and government sectors. For a detailed description of Australian rebates see: www.environment.gov.au/rebates/index.html.

2.5. Energy Pricing

The pricing mechanism for fuels and electricity in Australia is market-based—although some states apply retail price caps on social welfare grounds. The government's primary

mechanism to drive improvements in energy efficiency will be placing a price on carbon. The additional cost will flow through to energy prices and is expected to stimulate additional investment in energy efficiency.

2.6. Other Efforts for Energy Efficiency Improvements

2.6.1. Cooperation with Non-Government Organisations

The government cooperates with non-government organisations to stimulate energy efficiency improvements as appropriate.

2.6.2. Cooperation through Bilateral, Regional and Multilateral Schemes

The government cooperates with other economies through the Asia Pacific Partnership on Clean Development and Climate (APP). The APP brings together Australia, Canada, China, India, Japan, the Republic of Korea and the United States to address the challenges of climate change, energy security and air pollution in a way that encourages economic development and reduces poverty.

Relevant international standards are taken into account in the development of Australian MEPS.

2.6.3. Other Cooperation/Efforts for Energy Efficiency Improvements

Australia is a member of the International Energy Agency and is involved in various working groups, including the Energy Efficiency Working Party. It is also involved in discussions relating to better data collection and development of energy efficiency indicators.

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