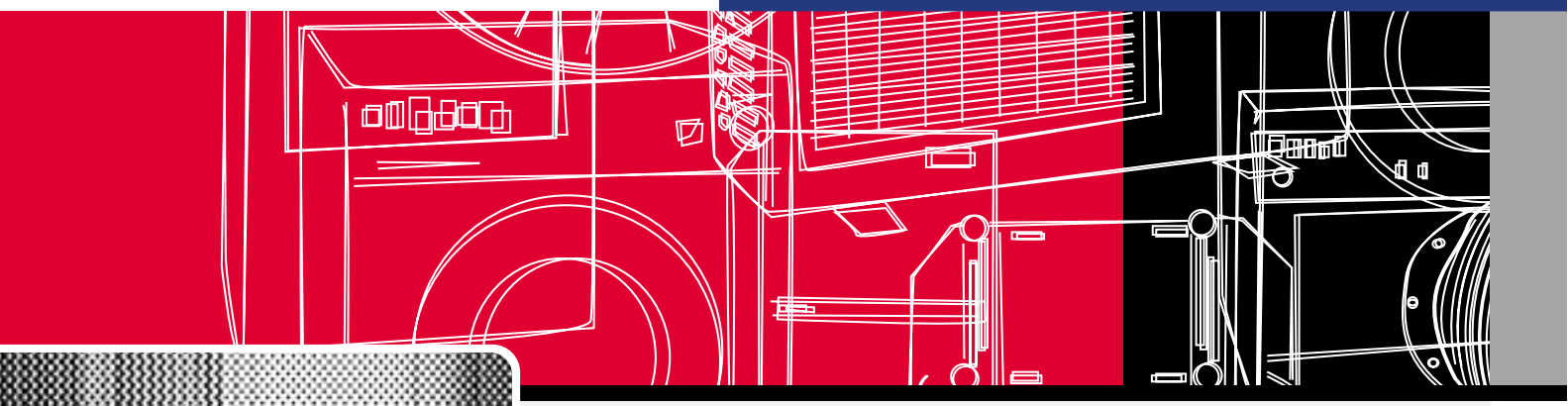
NATIONAL APPLIANCE AND EQUIPMENT
ENERGY EFFICIENCY PROGRAM

ACHIEVEMENTS 2000



AN AUSTRALIAN AND NEW ZEALAND MINERALS
AND ENERGY COUNCIL INITIATIVE FORMING PART
OF THE NATIONAL GREENHOUSE STRATEGY

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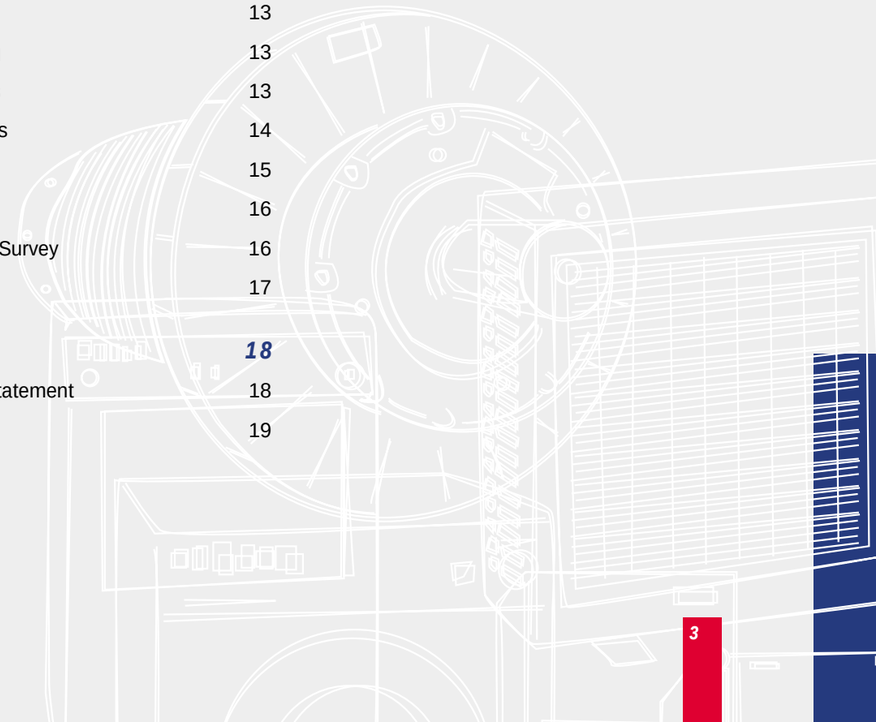


INTRODUCING NAEEEP

WHAT IS NAEEEP?

The National Appliance and Equipment Energy Efficiency Program has a regulatory focus, mandating comparative energy labelling and minimum energy performance standards for domestic appliances, commercial products and industrial equipment.

Government sponsored activities within the program may be categorised as falling into two forms, mandatory legislative actions and supportive voluntary actions by stakeholders.

The principal forms of legislative actions are:

- Energy efficiency labelling required for six major types of domestic appliances;
- Minimum energy performance standards currently required for three types of domestic appliances with development work being conducted for other products in the commercial and industrial sectors.

Government support for voluntary initiatives include:

- Information programs (eg the "*Reach for the Stars*" publicity campaign, the website of all appliances at www.energyrating.gov.au;
- Financial support and recognition for suppliers of efficient products (eg the national "*Galaxy Awards*" for appliances);
- Participation in developing voluntary standards and associated activities (eg National Energy Star Program refer www.energystar.gov.au); and
- Research and general industry development activities.

WHO IS INVOLVED?

NAEEEP is administered by a committee comprising representatives from two types of government agencies:

- State and Territory regulatory agencies responsible for administering mandatory energy efficiency labelling and performance standards called into legislation within their respective jurisdictions; and
- Commonwealth, State and New Zealand agencies with a mandate to encourage sustainable energy use and reduce greenhouse emissions.

The committee or NAEEEC comprises officers responsible for implementing energy efficiency and greenhouse gas reduction measures in all these jurisdictions. The current organisations that nominate members of NAEEEC are:

Australian Greenhouse Office – Commonwealth
Ministry of Energy and Utilities – NSW
Sustainable Energy Development Authority – NSW
Office of Chief Electrical Inspector – VIC
Sustainable Energy Authority, Victoria – VIC
Department of Mines and Energy – QLD
Environment Protection Agency – QLD
Office of Energy – WA
Office of the Technical Regulator – SA
Tasmanian Office of Energy, Planning and Conservation – TAS
Department of Urban Services – ACT
Department of Industries and Business – NT
Energy Efficiency and Conservation Authority – NZ

NAEEEC reports to another committee of government officials, the Energy Management Task Force (EMTF). EMTF is responsible for developing policies and funding these measures using monies collected from all Australian jurisdictions in agreed proportion. Both NAEEEC and EMTF advise the Australian and New Zealand Minerals and Energy Council (ANZMEC). This Council of Ministers responsible for energy is committed to supporting the national appliance and equipment energy efficiency program through the *National Greenhouse Strategy*.

A copy of the *National Greenhouse Strategy* is available from the AGO web site, www.greenhouse.gov.au/ngs/ngs.html

WHY HAVE A NAEEEP?

Although Australia only contributes just over 1% of total greenhouse emissions, our per capita emissions are among the highest in the world, reflecting our particular national circumstances.

Energy consumed by equipment and appliances is a major source of greenhouse emissions attributable to the industrial, commercial and residential sectors. Codes and standards programs are amongst the most cost effective and widely used measures used to combat these greenhouse emissions throughout the world. In 2000, 25 of the 29 OECD countries have either a standard or labelling code program.

Without action, Australia's stationery energy sector emissions alone were projected to grow by some 40% from 1990 to 2010. Until now, the program has focussed mainly in the field of domestic appliances and household equipment. Even with the appliance label and the first round of MEPS for water heaters, refrigerators and freezers in 1999, household energy consumption for products within the program were projected in 2010 to reach 89.6 PJ, exceeding the 1990 level of 88 PJ. In other words, the energy efficiency improvements driven by the original program were subsumed in the greater number of products used in Australia, resulting in similar projected energy use in 2010 to that used in 1990. For household products not within the program, however, electricity consumption doubled over the same period.

Overall, household energy use is projected to grow from around 138PJ in 1990 to a 174PJ in 2010. This rather bleak picture, however, does not take account of the NGS expansion of the domestic appliance program agreed in 1999 (including a revised appliance label and further rounds of MEPS for appliances). This expansion is projected to not only reduce energy use for these existing products but will also dramatically reduce energy usage by products not previously caught in the program net (for example, appliance standby power). In the future, NAEEEC intends to publish regular reports on the impact of its programs and projections for the future. With our expanded focus, these reports will cover commercial and industrial equipment in addition to domestic appliances.

The Australian program also provides an important stimulus to industry to develop energy efficiency technologies and enhance export potential while it provides community benefits through improved products using less energy and emitting less greenhouse gases.

WHAT IMPACT HAS NAEEEP HAD?

Between late 1986 (when mandatory appliance labelling commenced in the first state) and 2000, this program has reduced greenhouse gas emissions by approximately 5 million tonnes carbon dioxide equivalent (Mt CO_2-e) from "Business-As-Usual" (BAU) projections. By 2000, the existing appliance label was reducing greenhouse gas emissions by around 1.2 Mt CO_2-e per annum and this was projected to increase to 2.4 Mt CO_2-e per annum by 2010. These savings have occurred because of the consumer response to the appliance energy label.

Since 1993, NAEEEC has commissioned studies of the impact of the national appliance labelling program. NAEEEC purchases appliance sales data each year collected by independent commercial concerns. This data is used to develop a sophisticated stock model to measure changes

Energy Consumption Trends of Labelled Appliances

Year	Refrigerators	Freezers	Clothes Washers	Clothes Dryers	Dishwashers
1993	772	619	574	691	494
1994	755	606	558	683	485
1995	753	587	564	674	477
1996	765	603	565	664	445
1997	717	602	552	658	414
1998	689	626	550	660	405
1999	636	601	592	666	382

in the overall yearly improvement of product energy efficiency. In 2001, NAEEEC will release a detailed report on this study using data for seven years. In summary, the sales weighted energy consumption over the period is decreasing for all labelled appliance types, except for clothes washers where the average capacity increased significantly in 1999.

As energy consumption is not apparent to the consumer without information programs such as energy labelling, much of the credit for this improvement must be attributed to the energy labelling program. Markets will deliver technological improvement but not at the rates experienced in Australia through the 1990s. The program increases consumer awareness of energy issues and results in increased demand for energy efficient products.

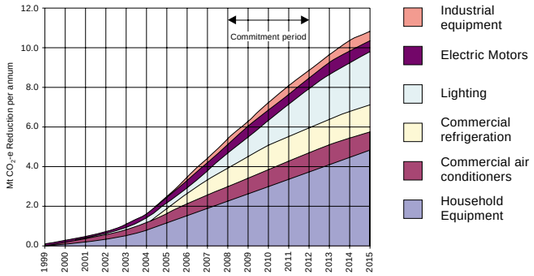
NAEEEC has commissioned extensive focus group and other consumer purchaser studies examining the program and ways to improve it. Energy efficiency may not be the most important consideration for all consumers buying appliances but it certainly is a key factor for some consumers. There is ample evidence to show many consumers use comparative energy efficiency to differentiate between those appliances that meet all their other requirements.

Around 85% of recent or prospective appliance purchasers remember the label and its key elements with 50% of purchasers say they use the label when making a purchase. Only 14% of consumers consider energy efficiency as “not particularly important” or “not at all” when buying a new appliance.

WHAT IMPACT WILL NAEEEP HAVE?

In a publication entitled *National Appliances and Equipment Energy Efficiency Program – Combined Impacts*, the mandatory elements of the 1999–2001 work plan as they are implemented over the next few years is estimated to save:

Combined Projected Impacts of Programs Covered in this Report



NAEEEP is projected to reduce greenhouse gas emissions by a cumulative total of 81 Mt CO_2-e over the period 2000–2015. Household appliances are projected to contribute 44% of the savings, commercial equipment 44% (comprising lighting over 19%, commercial refrigeration over 14%, and commercial air conditioners 11%), while industrial equipment are projected to cover the remainder (mainly motors at nearly 7%). NAEEEC believes this expansion meets the challenge expressed in the *National Greenhouse Strategy*.

The average impact during the Kyoto Protocol Commitment period 2008 to 2012 is estimated to be 7.2 Mt CO_2-e per annum reduction below the business-as-usual projection. By 2015 that impact is projected to reach 10.9 Mt CO_2-e per annum below BAU.

PROGRAM PARTNERS

This program is only possible with the support of the community and the professional expertise and commitment of major stakeholders. As the history of the program shows, a consensus approach involving major stakeholders achieves timely greenhouse abatement. A number of organisations must be identified as partners in the national energy efficiency program.

INDUSTRY ASSOCIATIONS – CONSIDERING REGULATORY PROPOSALS

Both the Australian Electrical and Electronic Manufacturers’ Association and the Consumer Electronics Suppliers Association are partners with government in the labelling and MEPS program for appliances and equipment.

Members of both associations contribute their time and expertise to consider program proposals and to participate in Australian Standards committees (and sometimes participate on international committees). The outcomes of the regulatory programs are enhanced through the vigorous participation of industry experts and decision-makers.

The mature relationship between regulators, the secretariat and office bearers of these bodies assists in identifying future issues and overcoming problems as they are identified rather than afterwards, when opportunities to quickly and cheaply address the problem have passed.

STANDARDS AUSTRALIA – SETTING LEVELS AND TEST METHODS

NAEEEC has an arrangement with Standards Australia to allow relevant standards to be used as the vehicle to establish regulatory requirements for energy labelling and MEPS. This arrangement allows all jurisdictions to develop nationally consistent laws by calling the content of these standards into regulation. Standards are used as the means of specifying the necessary technical information on which the legislation is based.

Representatives of NAEEEC participate in appropriate Standards committees to:

- Ensure that the outcomes are fair to all Australian manufacturers and importers; and
- Balance the interests of industry with those of consumers and the broader community within the context of governmental environmental objectives.

NATA – HELPING TO MEASURE COMPLIANCE

The National Association of Testing Authorities, Australia (NATA) provides accreditation services for laboratories engaged in the testing of appliances for energy labelling purposes. NAEEEC has a policy of using only NATA accredited independent laboratories in its program of testing products to verify energy labelling or MEPS compliance. In 2000, NAEEEC entered into an ongoing agreement with NATA to maintain the highest possible levels of testing accuracy by accredited laboratories. NATA works with NAEEEC to conduct laboratory proficiency testing, ensuring a high level of reproducibility exists between NATA accredited laboratories.

This partnership aims to improve community confidence in the accuracy of the energy labelling program and MEPS program.

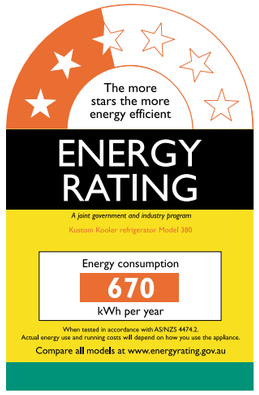
ACCC – HELPING TO ENFORCE THE RULES

From July 2000, the Australian Competition and Consumer Commission (ACCC) agreed to consider taking action under the Trade Practices Act 1974 in response to suppliers misleading consumers with mislabelled or non-MEPS compliant appliances. NAEEEC will consider referring products that fail verification testing after action by the relevant state regulator. In 2000, NAEEEC did not refer any matter to the ACCC under this agreement.

This partnership enhances existing State and Territory based sanctions against suppliers of mislabelled products with the very real deterrents offered by the national consumer protection regulator.

ACHIEVEMENTS IN 2000

APPLIANCE LABEL – A NEW LABEL FOR A NEW MILLENNIUM



Since January 1998, NAEEEC has been working towards replacing of the existing appliance energy label with a revised label. The new label features a revised star band scale designed to provide greater scope and incentive for suppliers to improve the performance of their products. The new design was the result of detailed consumer and supplier feedback.

Commencing in April 2000, NAEEEC co-ordinated the transition from the old to the new label. The transition period for the new label ended on 30 September 2000. An intensive information program was implemented before and during the transition period to support the introduction of the revised label. Retailers of affected products were supported with the provision of an education kit explaining the changes, “Label Update” Bulletins, the establishment of the Energy Rating Web Site, point-of-sale material, information Icons for catalogues, fact sheets and an Energy Rating Label Hotline.

Media coverage throughout the campaign was supportive with coverage in areas not traditionally associated with the program (eg ethnic media, regional media, lifestyle and trade magazines). The label transition also featured on mainstream media such as Burke’s Backyard, Better Homes and Gardens, Trade Fairs and ABC Radio.

By the end of 2000, the Energy Rating Web Site had been updated by removing all old star ratings for products not re-registered. State regulators cancelled redundant registrations and the database now represents an up-to-date source of information about these appliances. NAEEEC reports later in this publication on the compliance steps that have been taken to ensure the transition to the new label has been effective.

APPLIANCE WEB SITE – ENERGY LABELLING GOES ON-LINE

In April 2000 an Internet site www.energyrating.gov.au was launched. The web site includes detailed information on application requirements for manufacturers, references to relevant standards, buying tips for consumers and lists of the most efficient models in each category of appliance. The site also includes a search and sort facility for all energy labelled electrical appliances as well as a downloadable version of the public data for current models. The web site address appears on the new appliance label.

REACH FOR THE STARS – PROMOTING THE ENERGY RATING LABEL

The Australian Greenhouse Office, the Sustainable Energy Authority, Victoria and the NSW Sustainable Energy Development Authority (all member organisations of NAEEEC) have combined to create the ‘Reach for the Stars’ program. The “Reach for the Stars” Program aims to promote the awareness of the Energy Rating labels and the Galaxy Energy Awards on star rated gas and electric appliances, and encourage the increased sale of high star rated appliances.

Through targeted initiatives, the “Reach for the Stars” Program will:

- support suppliers of energy efficient products;
- assist retailers to provide better service to consumers;
- help consumers to choose the more efficient products that will save them money on running cost and help reduce greenhouse gas emissions; and
- help to reinforce the consumer and retailer education on the Energy Rating labels.

The Program commenced in 2000 with the Galaxy Energy Awards. A number of activities especially targeting the retailer sector have been incorporated into the program, including catalogue promotions, sales promotions, point of sale material and a retail training kits.

While the ‘Reach for the Stars’ Program will concentrate its activities in Victoria and New South Wales, program resources will be made available to the other States/Territories for reproduction.

GALAXY ENERGY AWARDS 2000 - RECOGNITION OF APPLIANCE EXCELLENCE

The Galaxy Energy Awards were held in Sydney on 10 November 2000 as part of the new ‘*Reach for the Stars*’ Program – a joint initiative of the Australian Greenhouse Office, the Sustainable Energy Authority Victoria and the NSW Sustainable Energy Development Authority. The Awards recognise the appliance industry’s efforts in the design, manufacture, retail and distribution of energy efficient products. A record number of appliances received Galaxy energy awards, which means that Australian consumers now have a wider range of energy efficient goods to choose from than ever before. Major awards were presented to:

- Whirlpool Australia Pty Ltd – Galaxy Star award for outstanding commitment to the development and marketing of domestic appliances in Australia.
- Mod Cons Pty Ltd in Geelong – Outstanding retail operation award.
- Gasmart Victoria – Best retailer award.
- Brivis Climate Systems – Environmental excellence award.
- Liebherr Refrigeration – Most innovative appliance award.

A complete list of award winners can be found at: www.seav.vic.gov.au/awards/galaxy

Award winning companies can use the Galaxy Energy Award logo as a sticker on appliances, in point-of-sale material, brochures and in advertisements.

STANDBY POWER FORUM – RECOGNISING THE PROBLEM

Standby power is:

- the minimum power used by a device while connected to the mains power supply, or
- the energy used by an appliance when plugged in but not performing its principal function.

Recent estimates put electricity used by appliances in standby mode accounts at more than 10% of domestic household electricity usage in Australia. This equates to $500m worth of electricity each year generating around 5 million tonnes of carbon dioxide or the equivalent greenhouse impact of one million cars.

Tackling the issue of standby power consumption necessarily involves a wide range of response, as an extraordinary number of appliances consume energy when in standby mode. NAEEEC is already combating the standby power of computers, faxes, printers and photocopiers by adopting the successful United States approach using the Energy Star logo to endorse complying office equipment.

NAEEEC will focus attention to the standby power consumption of domestic appliances by a range of interrelated measures:

- In 2000, Australian governments made a commitment to the principle that all electronic appliances should consume less than one watt whilst in standby mode and, to achieve that goal, agreed to fund a number of domestic programs and support international initiatives.
- The Australian *Energy Star* program will expand to include home entertainment equipment. Consumers will soon be able to identify energy-efficient TVs, VCRs, DVD players and audio equipment by looking for the blue and green *Energy Star* logo.
- The standby energy used by whitegoods will be incorporated into the mandatory Energy Rating label over the next few years.
- By 2001, NAEEEC will complete research to measure the size of the existing standby power problem, and to monitor program impacts over time.

NAEEEP CONSULTATION FORUM – STAKEHOLDER OPPORTUNITY TO INFLUENCE DEBATES

In March 2000, NAEEEC held its third annual forum to discuss the program. These forums provide an opportunity for NAEEEC to inform stakeholders of its achievements and future plans. The forum also provides stakeholders with the opportunity to identify issues of concern. Almost 80 participants attended representing supplier companies and trade associations, professionals involved in standards development and testing, environmental and consumer groups, government regulators and energy agencies, professional consultants and trade media.

The forum involved presentations introducing the three themes for the day:

- Appliance enforcement
- Appliance Labelling
- Equipment Best Practice

The new appliance label was publicly released together with transition timetables and the communication strategy, jointly developed by manufacturers, retailers and government, were outlined to the delegates. NAEEEC members provided practical advice to delegates about the ANZMEC endorsed policy goal — matching world's best practice for MEPS. Under this policy, Australia will examine matching the most stringent MEPS levels in force by our major trading partners, subject to cost benefit justification and public views. In the best practice theme, case studies on motors and lighting were used to highlight issues. A summary of proceedings appears at: www.greenhouse.gov.au/energyefficiency/appliances/naeeec/program

SWITCHED ON – NEW PUBLICATION TO INFORM STAKEHOLDERS

In July 2000, the Australian Greenhouse Office published the first newsletter dedicated to the national program. *Switched On* is designed to ensure industry and other stakeholders remain informed of proposals for change, are provided with intelligence on international developments and have access to information on trends and regulatory proposals. This free four-page quarterly newsletter summarises important issues and provides links or contacts for further information. It may be downloaded from www.greenhouse.gov.au/energyefficiency/ or a printed copied ordered from energy.efficiency@greenhouse.gov.au

Other NAEEEC members publish more general newsletters and publications that carry stories about product energy efficiency. These publications together with promotional printed materials represent easy ways for interested community members to monitor the program.

TRANS TASMAN MUTUAL RECOGNITION AGREEMENT – A COMMON MARKET WITH NEW ZEALAND

The passage of the Trans Tasman Mutual Recognition Agreement (TTMRA) in 1998 impacted on this program. From that date, products acceptable in one participating jurisdiction were acceptable in all other jurisdictions. In circumstances where New Zealand had only a voluntary labelling and no MEPS program, the TTMRA raised the prospect of products manufactured in or imported through New Zealand avoiding our mandatory program when sold in Australia.

In 1999, NAEEEC negotiated an exemption from TTMRA for the Australian appliance labelling program. This outcome had the effect of maintaining the status quo for the appliance labelling schemes in Australia and New Zealand. The exemption, however, was limited to only those products with each potential MEPS product facing a similar negotiation process. Early in 2000, officials were exploring an exemption to protect the Australian MEPS program when the New Zealand Government indicated a change of policy.

From 2001, the New Zealand Government expects to develop its own domestic MEPS program, which may closely reflect the Australian regulatory schemes for appliances and equipment. NAEEEC members are working with the NZ Ministry of Environment and Commonwealth agencies to ensure the TTMRA aim of facilitating a single Australasian market does not adversely affect NAEEEP.

NAEEEC Member	Publication Name	Publication Details
Department of Industry and Science Resources	Efficiency Best Practice Program	Bi-monthly newsletter published by ISR Contact energy.bestpractice@isr.gov.au
Sustainable Energy Development Authority of NSW	Watt's News	Monthly newsletter from SEDA Contact Jacqueline MacRitchie <Jmacritchie@seda.nsw.gov.au>
Sustainable Energy Authority of Victoria	The Sustainable Energy of Victoria	A free of charge quarterly report available from SEAV by contacting Alison Paul, 03 9655 3281 or AlisonP@seav.vic.gov.au
Office of Sustainable Energy – QLD	e News	A monthly newsletter available from OSE by contacting Katrina Hergstrom 07 32277560 or khergstrom@dme.qld.gov.au
Office of the Technical Regulator – SA	Energy South Australia	A free of charge tri annual report, available from the Office of the Technical Regulator by contacting Kaylee de Wet-Jones, (08) 8226 5534 or dewt-jones.kaylee@saugov.sa.gov.au

ADMINISTRATIVE GUIDELINES – STANDARDISING COMPLIANCE PROCEDURES

In January 2000, NAEEEC published its administrative guidelines. These guidelines explain how the relevant State and Territory regulatory agencies intend to administer labelling and performance standards schemes.

The guidelines commit every energy efficiency regulator to a uniform and consistent approach to enforcing energy efficiency legislation. It also provides suppliers with clear guidance on how government officials will deal with administrative issues associated with existing regulations and Australian Standards. A copy of the guidelines can be found on: www.greenhouse.gov.au/energyefficiency/appliances/naeeec/program

FUTURE MEPS – IN-PRINCIPLE CONSENSUS ON FUTURE REFRIGERATOR & FREEZER LEVELS

In 1999, ANZMEC agreed that NAEEEC should adopt the policy of matching world's best practice for MEPS levels for most appliances and equipment. Refrigerators and freezers became the first product to be subject to this policy. The process used for this product will become the template for future MEPS dialogues.

An initial review in late 1999 revealed that the US MEPS levels, due to come into force in July 2001, were the most stringent of our major trading partners. Australian Governments, however, had previously committed that the earliest date for revising MEPS levels for these products was October 2004.

During 2000, representatives from the appliance industry, the Australian Consumers' Association and NAEEEC members worked closely to convert the US 2001 MEPS levels to an equivalent level for application in Australia. The issues faced by the working group included overcoming differences in product categories and classification, differences in energy consumption test methods and variations in terms of performance requirements under the different standards.

Extensive computer modelling was undertaken of the impact of various factors and differences to address these issues in an objective fashion. A laboratory testing program was also undertaken to verify that computer modelled differences were realistic. Six "locally" sourced refrigerator/freezers (230V/50Hz) and three imported units from the USA (115V/60Hz) were tested using Australian, USA and ISO test methods. In addition, a range of extra exploratory tests were undertaken to assess the impact of specific factors such as voltage variations, ambient test temperature variations, placement positions for freezer temperature sensors and the energy impact of varying the temperature of the fresh food compartment.

In late 2000, the working group unanimously agreed to recommend to NAEEEC a set of revised MEPS levels that were "equivalent" to the US 2001 MEPS levels. These levels will be incorporated in the relevant Australian Standards and will be subject to cost benefit and community consultation during 2001 for potential implementation in 2004.

The revision of the Australian MEPS levels for refrigerators and freezers involved representatives from all key stakeholder groups. After a great deal of discussion, testing of products, expert opinions and hard negotiation, the unanimous outcome represents an excellent example of the maturing MEPS debates in Australia and a model for all future MEPS discussions.

CONTINUING NAEEEP ACTIVITIES

MINIMUM ENERGY PERFORMANCE STANDARDS – DEVELOPING FUTURE LEVELS FOR AUSTRALIA

During 2000, NAEEEC commissioned experts to develop the case for imposing MEPS for a variety of equipment types. These technical feasibility reports together with the proposed regulatory response by NAEEEC will be released in 2001:

- Commercial refrigeration systems (packaged systems);
- Commercial refrigeration systems (customised systems);
- Commercial water heaters;
- Domestic electric water heaters (mains storage types – for 80 litre and above)
- Domestic electric water heaters (other than mains storage types);
- Distribution transformers;
- Lamps;
- Evaporative air conditioner systems;
- Commercial air compressors;
- Commercial boilers

STANDARDS DEVELOPMENT – MAINTAINING OUR STANDARDS

Round Robin Tests for all Appliances – a check on laboratory testing accuracy

In September 1999, NAEEEC agreed to undertake a comprehensive testing program of all regulated appliance types in every independent NATA accredited laboratory in Australia. This program consisted of 13 products being tested by six laboratories resulting in 53 test reports. The main focus was to identify testing issues within each Standard that may require reconsideration by the relevant Standards Committees.

This "round robin" test program was undertaken with the assistance of the NATA who provided witnesses at each of the tests conducted in each laboratory. The initial round of testing was commenced in October 1999 with the tests in this initial round completed in late March 2000. A program of follow-up tests was completed later in 2000 in response to specific questions and queries raised by the original results for four of the six appliance types.

The round robin tested the repeatability (the ability to obtain the same result on the same machine in the same laboratory) and reproducibility (the ability to obtain the same result on the same machine in a different laboratory) of the test procedures used for energy labelling and MEPS.

A number of proposed changes to the test Standards have been prepared for consideration by standard committees as a result of the round robin. NAEEEC will share the results (subject to some confidentiality constraints) with other stakeholders as part of the process of continually improving public confidence in both appliance labelling and minimum energy performance standards. The results will be released publicly in 2001 and NAEEEC proposes to assist suppliers' laboratories to also test the same units used in the "round robin" in their own laboratories.

THE NATIONAL APPLIANCE STANDARDS PROGRAM

The following is a summary of standards development work conducted in Australia this year:

Air conditioners

Continued inter laboratory comparisons witnessed by NATA to overcome issues arising out of the round robin. NAEEEC also funded testing to support proposals to develop the ISO standard.

Clothes Dryers

Continued testing to support proposed revisions to the Standard developed in response to findings from the 1999 – 2000 round robin test program.

Clothes Washers

Calibration of materials used to test wash performance as well as development and testing of potential detergents to be specified in the Standard for top loading and possibly front loading machines. NAEEEC also sought to more clearly specify the equipment used to measure wash performance in the Standard.

Dishwashers

Development testing for the proposed improved test method used to measure labelling compliance, due for publication in 2001.

Electric storage water heating

Testing revisions to the potential Standard, proposed in response to findings from the round robin test program and additional development work.

Digital television (set top boxes)

NAEEEC members participated on the standards committee to improve the energy efficiency of these units, particularly in “standby” mode.

Home entertainment equipment

The “Energy Star” voluntary endorsement program has been adopted by Australia for these internationally traded products (NAEEEC engages SEDA to deliver the national program on its behalf). The international efficiency levels developed by the US Environmental Protection Agency have been adopted in Australia.

Refrigerators / Freezers

Inclusion of an improved test method and revised testing procedures. These amendments arose from negotiations about the next round of MEPS in 2000 as the round robin showed high levels of repeatability and reproducibility for these products.

THE NATIONAL EQUIPMENT STANDARDS PROGRAM

A number of commercial and industrial equipment types are in the process of being brought into the energy efficiency regulatory net. Before any regulation can be proposed, the Australian standard must specify the method of test and the performance levels required of suppliers. The following equipment standards are under active development:

Industrial three phase electric motors: the test method and the MEPS levels have been published by Standards Australia and MEPS are due to come into force in late 2001;

Three phase electric air conditioner systems up to 65kW: the test method and the MEPS levels have been published by Standards Australia and MEPS are due to come into force in late 2001;

Ballasts for fluorescent lamps: the test method was developed for Australia and New Zealand and it even received support from Asia Pacific economies as representing a method potentially suitable for the wider international community.

Office Equipment: the “Energy Star” voluntary endorsement program has been adopted by Australia for these internationally traded products (NAEEEC engages SEDA to deliver the national program on its behalf). The international efficiency levels developed by the US Environmental Protection Agency have been adopted in Australia.

The International Standards Program

NAEEEC supported its members and industry representatives to attend these international standards meetings:

Committee/working group	Standard Number	Product	Dates
APEC Symposium	Various	Refrigerators	March 2000
MT14 of IEC SC59D	IEC61121	Clothes Dryers	April 2000, October 2000
MT15, WG13 of IEC SC59D and sub groups	IEC60456	Clothes Washers	April 2000, October 2000
WG2 of IEC SC59A	IEC60436	Dishwashers	April 2000, October 2000
WG1 of ISO SC86SC5	ISO refrigerators	Refrigerators	Correspondence
WG1 of ISO SC86SC6	ISO5151, ISO13253	Ducted and non ducted air conditioners	May 2000
WG5 of ISO SC86SC6	ISO15042	Multi-split air conditioners	July 2000
Ad hoc working group on Standby of IEC TC59	New	Multiple (horizontal standard)	Various
WG1 of IEC SC2G	IEC60034	Industrial motors	May 2000

CHECK TESTING – VERIFICATION OF APPLIANCE SUPPLIER CLAIMS

NAEEEC conducts a national “check testing” program to provide the community and stakeholders with data on accuracy of the labelling scheme and compliance by suppliers. Appliances are purchased from retail outlets and tested in NATA accredited independent laboratories to verify the claims associated with the energy label for six appliance types and, for the first time in 2000, the minimum energy performance standards of three appliance types.

NAEEEP has included a check testing program since 1991. From modest beginnings, by 2000 the national program has tested 420 appliances. Units are not randomly selected for check testing, rather sophisticated selection criteria and market intelligence are used to target testing towards units more likely to fail. The criteria are reported in the NAEEEC Administrative Guidelines. A summary of the program for each year is shown in the table below:

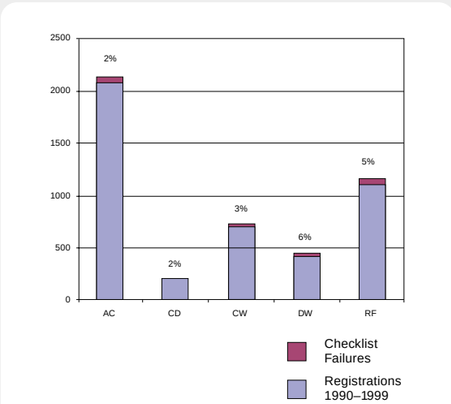
Each of the various appliance groups tested has exhibited differing failure rates. The total number of failures for each appliance type since 1991 is shown in the figure below:

Since the 1998 National Greenhouse Strategy, NAEEEC allocates in excess of $100,000 each year to conduct check testing in laboratories (and related testing used for standards development).

NAEEEC and its program partners are justifiably proud of the program’s compliance levels, which are amongst the best in the world. NAEEEC and its program partners, however, recognise that we must continue to strive to improve those products that fail. Especially in circumstances where governments are imposing additional costs on all suppliers to meet labelling and MEPS, NAEEEC is committed to promoting suppliers who comply with the program.

Verification testing, however, was dramatically scaled down from usual annual levels because of the round robin testing programs undertaken during this year. A limited round of check testing of two appliance types, 11 targeted refrigerators and freezers, was completed late in the year. Only one unit failed the initial screen test for both energy consumption as well as the MEPS cut-off level. This failure was referred to the registration holder late in 2000 and the outcome will be reported next year.

Accuracy of Suppliers Label Claims



Year	Number of Label Registrations	Number of Checktest Failures	% of Registrations that failed
1999–2000	624	1[1]	0.2%
1998–1999	525	31	5.9%
1997–1998	668	20	3.0%
1996–1997	490	28	5.7%
1995–1996	359	39	10.9%
1994–1995	386	11	2.8%
1993–1994	369	14	3.8%
1992–1991	414	8	1.9%
1991–1992	322	0	0.0%

[1] This low figure resulted from the reduced scope of the check test program in this year.

APPLIANCE DEREGISTRATION – THE ENFORCEMENT SANCTION FOLLOWING CHECK TEST FAILURE

Under electrical safety legislation, an appliance must be registered in one jurisdiction to be sold lawfully throughout Australia. State energy regulators have a range of administrative and legal sanctions that can be imposed in the unusual event that a supplier markets mis-labelled products. The Administrative Guidelines set out the process followed by regulators to ensure the supplier has a fair opportunity to comment on the check test result.

Regulators withdraw registration in circumstances where the check testing processes establishes the product does not meet the claimed label requirements after contact with the supplier.

In 2000, regulators deregistered one appliance arising from check test results.

Product Type	Brand	Model	Outcome of Referral
Dishwasher	Smeg	LSE701	Registration withdrawn by applicant and subsequently re-registered with higher comparative energy consumption (label).

ENERGY RATING LABEL COMPLIANCE SURVEY – POLICING RETAILERS

In 1998, NAEEEC commissioned a major study to ascertain the proportion of household electric appliances correctly displaying Energy Rating Labels in retail premises throughout Australia. The survey looked at more than 30,000 appliances and covered 400 stores of varying size across eight capital cities in Australia. The survey showed label compliance across the board was better than 92% for all product types inspected which represented a level equal to the best compliance rate in any OECD country.

In November 2000, NAEEEC commissioned a pilot survey to gauge progress with the transition to the new appliance energy label. This transition survey examined 150 outlets in capital cities and regional areas in NSW, Victoria and Qld. Over 14,500 appliances were included in the study, 70% displayed the new label, 21% displayed the old label and 9% were unlabelled. The survey also found label compliance was better in city areas than in regional areas.

NAEEEC will use the transition survey to better direct its resources toward improving compliance and community understanding about the appliance label. This pilot study will also be used to better develop a full-scale survey to be conducted during March 2001.

PUBLICATIONS

Topic	Title	Content	Copy obtainable from
Overall Program	National Appliance & Equipment Energy Efficiency program	Work Program 1999 – 2001	Australian Greenhouse Office
March 2000	Projected Combined Impacts from an Enhanced Program,	Greenhouse and energy projections about the program	Australian Greenhouse Office till 2015
July 2000	The Design of a Codes and Standards Program – The Australian Experience	Description of our program compared to that in the USA	Australian Greenhouse Office
Appliances			
	APEC Refrigeration report		Australian Greenhouse Office
	Standby Power	Description of the scope of the problem in Australia	Australian Greenhouse Office
	Your Guide to the Revised Appliance Energy Rating Label	Details about the new energy rating label	Australian Greenhouse Office
Equipment			
August 2000	Regulatory Impact Statement – three phase air conditioners	Justification and cost benefit analysis of the decision to regulate	Australian Greenhouse Office
August 2000	Regulatory Impact Statement – three phase electric motors	Justification and cost benefit analysis of the decision to regulate	Australian Greenhouse Office
September 2000	Lighting Challenge Program – Options Study	Description of possible voluntary options to improve efficiency	Australian Greenhouse Office

ANNEXURE 1:
REGULATORY IMPACT STATEMENT CRITERIA

PRINCIPLES USED WHEN ADVOCATING REGULATION

In Australia, the national energy efficiency program for products is generally regulatory in nature. Australian governments are committed to the principle that any potential national regulation should be the most effective and the most efficient option of achieving the desired policy goal. Legislative proposals (even for environmental and social policy goals like greenhouse gas mitigation), which impact on the way people and industry behave, must be subject to the formal impact assessment process embodied in the Regulatory Impact Statement (RIS). The RIS process is explained in great detail in documents produced by the Commonwealth Office of Regulation Review.

This annexure discusses the more specific issue of how the energy policy tools of MEPS and mandatory labelling are subject to the RIS process to ensure the best regulatory outcome for the community. It explains the criteria used by NAEEEC to determine the preferred regulatory option amongst a range of differing regulatory options within the RIS framework.

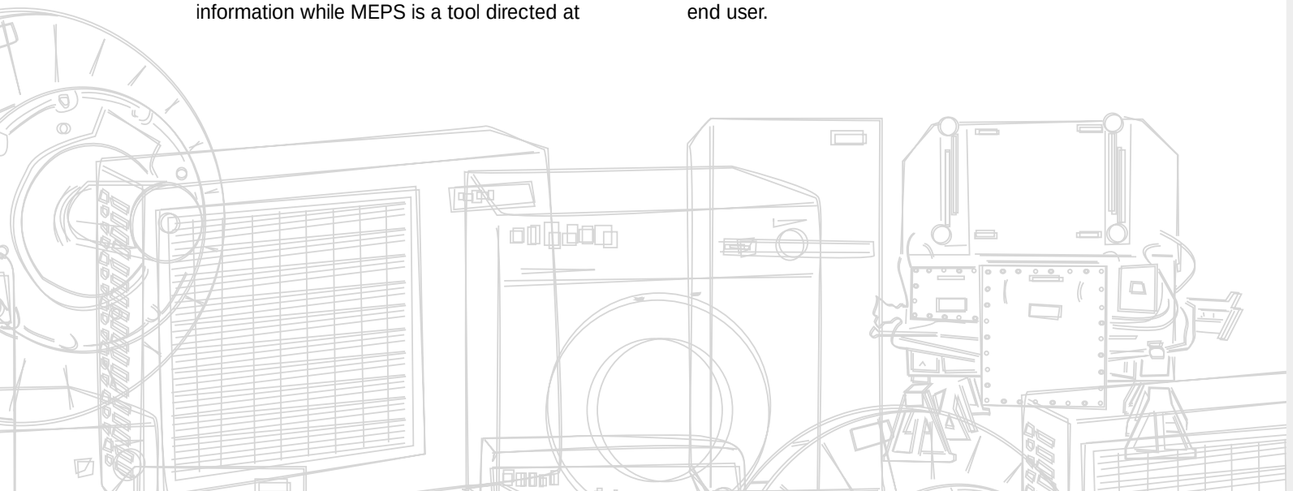
Any RIS must identify the alternatives to "black letter" law that could wholly or partly achieve its objective. These alternatives are examined using the economic tool of cost benefit analyses to establish the positive and negative effects experienced by different parties when implementing a proposal. Mandatory labelling for example addresses the market failure of poor information while MEPS is a tool directed at addressing the problems of split incentives (where the purchaser of the equipment does not pay the energy bills) and greenhouse externalities (where government sets environmental goals beyond which the market would otherwise deliver).

Where MEPS and labelling offer the best option in comparison to alternatives to regulation, NAEEEC will go further and establish the most effective and efficient regulatory option. Where a number of MEPS scenarios (combinations of levels and start dates) are contemplated, NAEEEC will strive for the regulatory option which has the highest net public benefit.

In other words, NAEEEC will examine a range of options within the scope of regulation to ascertain the highest positive value of benefit minus cost to the community, provided that:

- The benefit cost ratio is 1 or greater (without assigning monetary value to greenhouse emissions but allowing for uncertainty); and
- All other relevant criteria (eg product quality, effective market competition and consistency with Australia's trade objectives) are met.

Stakeholders should note that this process looks at overall benefits to the entire community. It even allows for the net costs to some stakeholders to be outweighed by the net benefits to others within the community. In the context of product energy efficiency, the process assumes that the additional costs incurred by suppliers (manufacturers, importers and retailers) in developing and selling energy efficient products will be passed onto the end user.



ANNEXURE 2:
NAEEEC MEMBER ORGANISATIONS

The Australian Greenhouse Office is the lead Commonwealth agency for greenhouse matters. The Australian Greenhouse Office is responsible for oversighting the National Greenhouse Strategy in a cooperative effort with States and Territories and with the input of local government, industry and the community. An AGO officer chairs NAEEEC and others provide secretarial and project support for its activities.

The NSW Ministry of Energy and Utilities operates a regulatory framework aimed at facilitating environmentally responsible appliance and equipment energy use. The Department is represented on the ANZMEC Energy Management Task Force through which the appliance and equipment related elements of the National Greenhouse Strategy are being progressed.

The NSW Sustainable Energy Development Authority was established in February 1996 with a mission to reduce the level of greenhouse emissions in New South Wales by investing in the commercialisation and use of sustainable energy technologies.

The Office of the Chief Electrical Inspector is the Victorian technical regulator responsible for electrical safety and equipment efficiency. Its mission is to ensure the safety of electricity supply and use throughout the State. The corporate vision of the Office is to demonstrate national leadership in electrical safety matters and to improve the superior electrical safety record in Victoria. The Office's strategic focus is to ensure a high level of compliance is sustained by industry with equipment efficiency labelling and associated regulations.

The Sustainble Energy Authority Victoria is a state government agency with a charter to facilitate energy efficiency and the development and use of renewable energy to achieve environmental and economic benefits for the Victorian community and to contribute to the reduction of greenhouse gas emissions.

The Queensland Department of Minerals and Energy Electrical Safety Office has responsibility for energy efficiency initiatives in this state.

The Queensland Environmental Protection Agency is the lead agency for renewable energy and is also responsible for energy efficiency initiatives in this state.

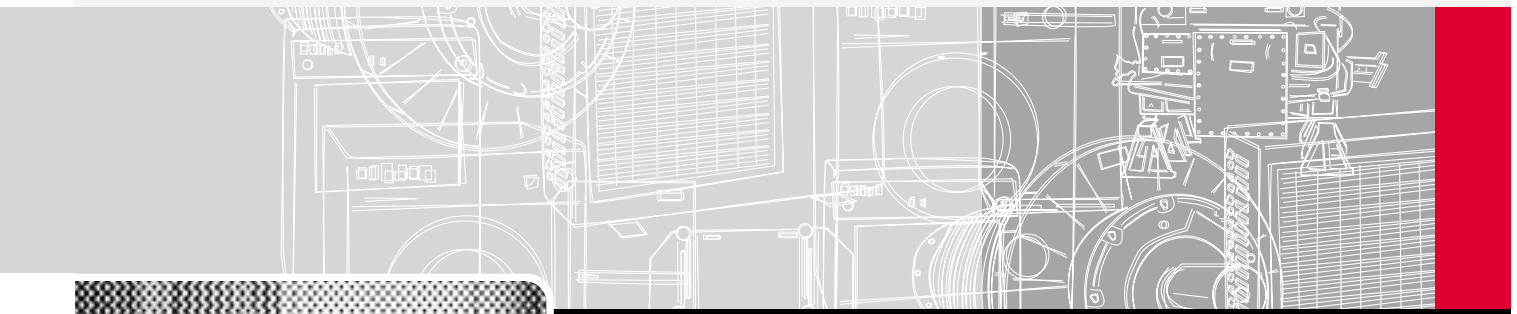
The Western Australian Office of Energy seeks to promote conditions that enable the energy needs of the Western Australian community to be met safely, efficiently and economically.

The South Australian Office of the Technical Regulator seeks to ensure the coordinated development and implementation of policies and regulatory responsibilities for the safe efficient and responsible provision and use of energy for the benefit of the South Australian community.

The Energy Efficiency and Conservation Authority is an independent agency of the New Zealand Government charged with identifying and implementing practical measures to reduce energy consumption – "Helping New Zealand use energy wisely".

NAEEEC also has, as members, the Tasmanian Office of Energy Planning and Conservation, the ACT Department of Urban Services and the Northern Territory Department of Transport and Works.

The activities of NAEEEC are funded by the Energy Management Task Force. These bodies report to the Australian and New Zealand Minerals and Energy Council.



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or any member organisation working
on the National Appliance and Equipment
Efficiency Program.