

THE AUSTRALIAN EXPERIENCE OF MANDATORY PRODUCT STANDARDS

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KEY WORDS

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ABSTRACT

This paper will examine the Australian appliance and equipment energy efficiency program; a codes and standards program created in 1992. The national program for the first time included the tool of minimum energy performance standards (MEPS). Mandated in legislation, MEPS withdraws the right to sell products not meeting efficiency standards set by governments. MEPS is a government policy used where the market fails to deliver energy efficient product to consumers quickly enough to meet climate change goals.

The Australian MEPS program progressed very slowly throughout the 1990s. The Australian Prime Minister's 1997 climate change statement (immediately before the Kyoto summit) and the subsequent publication of Australian domestic response measures as the *National Greenhouse Strategy*, however, re-invigorated the program.

The key to this re-invigoration is the policy decision to move from an insular approach negotiating product efficiency with supplier representatives in Australia to a new "international" approach. In essence, Australia avoids divisive technical arguments by simply adopting the best minimum MEPS and labelling already imposed by our major international trading partners.

By allowing several years delay before Australia imposes equivalent MEPS to those of the country of origin, all parties have certainty. Government officials responsible for energy efficiency and greenhouse abatement can responsibly argue that Australia manufacturers and importers can meet these technical standards without extraordinary research and development costs. Suppliers know that other manufacturers (possibly related companies for multi-national manufacturers and importers) will be required to engineer products to meet those standards sooner than the timetable for Australia. The community is confident that a cost-effective environmental outcome will be achieved.

Australia adopts the most stringent standards imposed by our trading partners where:

- Experts can "translate" those overseas levels into Australian standards taking account of our national circumstances;
- Regulatory impact studies demonstrate the proposed standards benefit the Australian community; and
- The entire process is subject to open public consultation that can affect the outcome.

The revised codes and standards program aims to be a pact of cooperation between government, industry and the community, which achieves economic, environmental and social benefits for all.

THE AUSTRALIAN CONTEXT

Australia is a federation of 19 million people on a continent larger than continental USA. Our greenhouse emissions equate to less than 1.4 per cent of total world emissions though our per capita emissions are amongst the highest of developed nations because of our reliance on fossil fuels, changing land use patterns, significant transport needs and higher projected population growth than other developed countries. In 1999, Australia's energy related emissions (excluding the non-energy sector and land use) were almost 334 million tonnes of carbon dioxide equivalent (or 3255 PJ).

Australia is a party to the United Nations Framework Convention on Climate Change, and took an active part in negotiating the Kyoto Protocol to that Convention. If sufficient countries ratify the Protocol, Australia will enter into legally binding limits on its future emissions. The National Greenhouse Strategy is the primary mechanism through which our international commitments will be met. This strategy represents a whole-of-government (federal, state and local) policy, setting the direction of all domestic climate-change response measures including this standards program. The strategy was agreed by all governments in 1998 and clearly establishes the goal of improving product energy efficiency by "*extending and enhancing the effectiveness of the existing labelling and MEPS programs*" (NGS 1998, p48).

Following that policy decision at the highest levels of government, the AGO (created in 1998 as the world's first dedicated agency on greenhouse as coordinator of all government agencies in this field), was charged with delivering an improved standards scheme.

AUSTRALIA'S APPROACH TO PRODUCT EFFICIENCY

Energy consumed by equipment and appliances in the industrial, commercial and residential sectors of the developed world is a major source of greenhouse emissions. Codes and standards programs, using legislation to require improved product energy efficiency, are amongst the most effective and widely used measures employed to reduce these emissions. Australian Governments recognise the importance of climate change and are committed to making a responsible contribution to international efforts to respond to this environmental threat.

Like 25 of the 29 OECD countries in 2001, Australia includes a "codes and standards" energy efficiency program, as part of that response¹. New Zealand has announced plans to regulate a program using the Australian scheme as a model by the end of this year.

While the form of these types of legislative programs reflect unique national conditions and circumstances, many of the experiences and problems faced in developing such programs are common to all economies. This paper explores the Australian national experience, which has embraced the best aspects of similar programs implemented overseas. It also examines the processes and procedures Australian government agencies have adopted to improve the general MEPS process for the future. It uses case studies to demonstrate the authors' assertions about the benefit to any economy of avoiding lengthy technical debates to achieve mandatory product regulation.

OLD APPROACH

In the Australian context, our program embraces three forms of mandatory (and quasi regulatory) elements:

- Comparative *labelling* empowering consumers to choose energy efficient products when considering a purchase;

¹ A recent APEC report suggests 41 countries label whitegoods in some form or another.

- Minimum energy performance standards (*MEPS*) where government withdraws the right of manufacturers, importers and retailers to lawfully supply products that do not meet predetermined levels; and
- *Endorsement* programs (including *Energy Star* labelling) where if a supplier voluntarily identifies a product as meeting the pre-determined standard it must comply with the rules for using the label or for being part of the scheme or breach the law.

The Australian system in the 1990s was modelled on what was happening overseas, but was focussed on determining “fair and reasonable” product regulation locally. All debates were between government officials and industry experts negotiating about what was reasonable and feasible sometime in an uncertain future.

However, extending the Australian standards program to embrace the MEPS concept for appliance and equipment products proved divisive throughout the 1990s. In 1992, governments commissioned expert reports to explore MEPS for three commercial equipment types and three domestic appliances. More than seven years later (in October 1999), MEPS commenced for the three domestic products, refrigerators, freezers and electric storage water heaters. MEPS for the industrial equipment types (electric motors, commercial air conditioning and lighting ballasts) remain to be finalised but reasonably firm commencement dates have been publicised in 2001 (and ballasts in 2002).

The process for achieving the first Australian MEPS for household refrigerators and freezers is a useful study to establish our point. The debate was originally conducted on the basis of removing a predetermined number of models from the market, though the end result saw a much smaller impact on the market than government officials sought and expected.

Table 1 records the 1999 MEPS levels and a revised MEPS level that all parties have agreed will commence in October 2004. The results shown in this table demonstrate what was wrong with the original approach used in Australia and what was better using the approach outlined later in this report.

Table 1 Australian Refrigerator 1999 MEPS and 2004 Levels

Australian Standard Group	MEPS fixed 1999 kWh	MEPS Slope 1999 kWh/adj litre	MEPS fixed 2004 kWh proposed	MEPS Slope 2004 kWh/adj litre	Group Description
1	368	0.892	278	0.335	Cellar or all refrigerator (no freezer) automatic defrost
2	300	0.728	289	0.290	Manual defrost (one door) with ice making compartment
3	330	0.800	283	0.344	Manual defrost (one door) with short term freezer
4	424	1.020	277	0.330	Refrigerator freezer - cyclic/manual defrost
5T	424	1.256	311	0.357	Refrigerator-freezer - no frost (top freezer)
5B	424	1.256	411	0.357	Refrigerator-freezer - no frost (bottom freezer)
5S	465	1.378	569	0.169	Refrigerator-freezer - no frost (side by side)
6C	248	0.670	190	0.483	Separate chest freezer
6U	439	0.641	281	0.298	Separate upright freezer - manual defrost

7	439	1.020	356	0.478	Separate upright freezer - no frost
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Notes: MEPS levels are defined in terms of energy tests to AS/NZS4474.1, which has an ambient temperature of 32°C. Anti-sweat heaters are operated on their maximum setting for all tests. The following additional allowances are also included in the 1999 MEPS level (equivalent factors for 2004 are not yet determined):

- additional 120 kWh/year for a through the door ice maker (these are uncommon in the Australian market);
- additional door allowance for models that have more doors than the designated number of reference doors for the product group in the Australian Standard.

The 1999 approach to setting MEPS levels can be labelled a “statistical approach”; that is, looking at the models available on the market and performing a regression analysis to determine the relationship between energy use and model adjusted volume. The original proposal sought to draw a line below 40% of available models in each of the nine classes though the delay in implementation dramatically decreased the energy savings and greenhouse reductions arising from this MEPS level. (Wilkenfeld, 2000, p4)

Table 2 is a comparison of the Australian 1999 MEPS levels with those which commenced in the USA during 1993. It demonstrates the US 1993 levels are more stringent than those that took effect in Australia some six years later. The authors include this comparison to show how, despite lengthy negotiation and good faith from all parties, the 1999 result was not as many might have expected.

Table 2 Australian Domestic Refrigeration MEPS 1999 compared with USA 1993

Australian Standard Group	AUS MEPS fixed 1999 kWh	AUS MEPS Slope 1999 kWh/adjust volume	USA MEPS fixed 1993 kWh	USA MEPS Slope 1993 kWh/adjust volume	Group Description
1	368	0.892	350	0.56	Cellar or all refrigerator (no freezer) automatic defrost
2	300	0.728	350	0.42	Manual defrost (one door) with optional ice making compartment
3	330	0.800	350	0.45	Manual defrost (one door) with short term freezer
4	424	1.020	435	0.39	Refrigerator freezer - cyclic/manual defrost
5T	424	1.256	386	0.58	Refrigerator-freezer - no frost (top freezer)
5B	424	1.256	398	0.59	Refrigerator-freezer - no frost (bottom freezer)
5S	465	1.378	546	0.41	Refrigerator-freezer - no frost (side by side)
6C	248	0.670	195	0.53	Separate chest freezer
6U	439	0.641	277	0.40	Separate upright freezer - manual defrost
7	439	1.020	412	0.53	Separate upright freezer - no frost

Notes: USA 1993 levels expressed in terms of the Australian Standard energy consumption test. Source: Harrington 1994.

The relative leniency, in comparative terms, of the Australian levels is due to a combination of the inherent flaws in a statistical MEPS approach and to unforeseen delays due to an absence of process. MEPS programs are about accelerating energy efficiency uptake rates in advance of what the market will otherwise deliver, modelled against business as usual (BAU). The original modelling (GWA, 1993) projected that if MEPS at the recommended levels were introduced in 1996 the electricity used by the stock some ten years later would be 5.4% below BAU. Given the delayed implementation, the actual impact is now estimated as 1.4% BAU after ten years (GWA, 1999).

The authors assert that such outcomes must be expected in a public policy paradigm where delay and regulation are synonymous. The delay is the result of uncertainty where no party is sure what the future might bring. They are all naturally cautious when negotiating about future uncertainties, resulting in extraordinarily long gestation periods for MEPS (the refrigeration experience is the shortest with proposals for other products resulted in ten years of delay).

Commentators are correct in suggesting this paradigm creates difficulty in any country. Typically, industry representatives comment that the proposed standards are too stringent and energy efficiency advocates comment they are too weak (Turiel and Hakim, p9.208). Government officials were left with this conundrum and without an established process struggled to resolve differences between stakeholder positions. The Australian process was similarly constrained, not through bad faith of any party, but through the absence of a clear public sector process and timetable for the national MEPS program. The absence of rules generated complaint and suspicion amongst all stakeholders.

It may well be that technical debates are the most appropriate approach for developed economies like the USA, the European states and Japan but it is very difficult for a country the size of Australia to impose energy efficiency levels beyond existing world's best minimum practice. The Australian economy is generally a "taker" of research and development advances in product efficiency, and not a market leader. It is our contention that other economies in a similar position might benefit from considering the "international" approach.

As a measure of the effectiveness of the program (ie the old approach), expert modelling shows that between 1990 and 1999 inclusive the program saved more than 5 million tonnes of carbon dioxide equivalent when compared to business as usual scenarios. These savings came from appliance labelling and early product changeover to MEPS compliant refrigerator models by some suppliers; the energy reduction caused by MEPS below BAU was in the order of 10 per cent².

NEW APPROACH

The new approach in Australia attempts a "better way" of engaging all parties in a MEPS debate because it delivers more certain outcomes. The changes shift the existing policy paradigm and improve process.

POLICY GOAL OF MATCHING MEPS BEST PRACTICE

In the consumer appliance and industrial equipment sectors, Australia is increasingly becoming part of a global market. Australian manufacturers are exporting throughout the world and importers have easier access to our markets. Increasingly, Australian Standards are developed in an environment of international harmonisation. The development of 'international' products means that specific Australian rules for these products are becoming less relevant and could constitute unintended trading barriers. Australia's trading policies reflect this position, as does the APEC decision to facilitate harmonisation of testing standards.

In 1999, the Ministerial Council responsible for energy efficiency matters agreed to consider:

² Compare the quantum of savings to those recorded later in the paper for 2000 - 2015.

“developing MEPS for Australia that match best practice levels imposed by our major trading partners for internationally traded products that contribute significantly to Australia’s growth in greenhouse gas emissions” (NAEEEC, 1999, p8).

Where appropriate, reaching this established level may be achieved through a staged process that introduces progressively more stringent requirements over time.

In broadening the scope of the national program, the Ministerial Council agreed that regulatory options would only be used if the economic benefit can be clearly demonstrated. Any proposed new legislation must be subject to a regulatory impact analysis, which includes formal economic analysis and extensive community consultation. Australian Governments will only support legislative intervention:

- where the community benefit outweighs the costs; and
- where the objective can only be achieved by regulatory means.

This policy change has dramatically expanded the scope of our potential MEPS program. It will allow the AGO to explore MEPS for as many as 30 new products³ and to propose refreshing our MEPS levels following the subsequent adoption of more stringent levels by any of our trading partners. In its work plan for 1999 – 2001, the AGO identifies more than a dozen new products earmarked for MEPS consideration during that period (NAEEEC 1999, p 9). In its draft work plan 2002 – 2004, the AGO announces plans to complete the process of considering regulation in Australia for every product already regulated overseas.

Case Study 1 - Revised Refrigerator MEPS:

MEPS for refrigerators and freezers in Australia were first seriously proposed in 1992 and a feasibility report published in 1993 showed that these were likely to be cost effective. After lengthy negotiations with industry (mainly over the test method) and disputes over the MEPS levels, the regulation creating MEPS for refrigerators and freezers came into force in late 1999. Australian Governments committed not to change these levels for a minimum of five-years.

The 1999 MEPS levels were developed on a statistical analysis of the 1992 Australian market, seeking to affect most of the then available models. The delay in implementation resulted in the Australian 1999 levels being significantly weaker than the 1993 US MEPS levels.

In April 1997, the US Department of Energy published revised MEPS levels for refrigerators for implementation in 2001. These essentially meant a 30% reduction in energy from the 1993 US levels for most groups and were therefore substantially more stringent than the Australian 1999 levels.

In late 1999, the AGO commissioned an analysis of the US 2001 levels and an initial estimate of these levels under the Australian test method were circulated to industry for comment. As the first product under its new policy of “matching world’s best practice”, the AGO convened a working group to examine the US 2001 MEPS levels in detail. This group drawn from industry, government and consumer bodies commissioned a wide range of work including consultant reports and an extensive testing program on Australian and US refrigerators to confirm the analytical and modelling work undertaken for the project.

After working intensively together throughout 2000, the working group came to a consensus position on new MEPS levels for Australia in 2004 that were equivalent to US 2001 levels. The revised standard, including the new MEPS levels, is due to be published in early 2001 and a regulatory assessment will be conducted in early 2001.

The authors suggest that this is a remarkable achievement for two reasons. First, all key stakeholders have unanimously agreed to the MEPS levels (industry government and consumer advocates). Secondly, because of the magnitude of the decision: not a single product on the Australian market in October 2000 met the proposed MEPS scheduled to commence in 4 years.

Case study one illustrates the effectiveness of the AGO policy of matching world’s best practice and the potential where industry and government work together in a cooperative fashion. The energy

³ Canada appears to impose MEPS on at least that many products.

reduction for the 2004 refrigeration MEPS will be in the order of 40 per cent (with some MEPS limits reduced by 50 per cent)⁴.

POLICY GOAL OF INTRODUCING A MEPS TIMETABLE

Government ministers have agreed the timeframe for the introduction of MEPS as a target, to provide some degree of certainty to the process involved and give industry an appropriate notice period to undertake any necessary modifications to production procedures. While this proposed timeframe is indicative only and flexible enough to take into account specific circumstances that may arise, it creates reasonable expectations amongst all parties of the date that MEPS will commence.

Table 3 is the published timetable that aims to reduce MEPS development periods to between two to five years (from the seven to ten taken during the 1990s).

Table 3. MEPS Timetable

1. MEPS Development Stage	Period
<p>Initial planning and review of the energy impacts and assessment of the feasibility of mandatory measures. (3 – 6 months).</p> <p>Cost/benefit analysis of potential legislative options (3 - 6 months).</p> <p>Industry consultation on potential legislative proposals (3 – 6 months).</p> <p>Development of Australian and New Zealand Standards for inclusion in regulations (9 – 12 months).</p> <p>Ministerial approval required before introduction of any new regulations.</p>	Up to 2 years
<p>2. MEPS Notification Stage</p> <p>Period of notification will depend on the level of manufacture undertaken in Australia. Longer periods would apply if Australian industry is required to undertake substantial development or re-tooling</p>	Between 1 – 3 years
<p>3. MEPS Duration Stage</p> <p>This is the ‘stability period’ in which no changes to regulations are made (ie MEPS levels unchanged).</p> <p>Longer periods will occur if world best practice is maintained.</p>	Minimum of 4 years
<p>4. MEPS Renegotiation Stage</p> <p>Discussions will continue on progressive enhancement for products where best practice was not achieved in the first round of MEPS. Where Australia has matched best practice, the international situation will be monitored regularly and further negotiations commenced only if a major trading partner improves MEPS beyond the Australia levels.</p>	To be determined on a case by case basis

⁴ Compare this 40 per cent projection for 2004 to the 10 per cent achieved in the 1999 MEPS round.

Case Study 2 Distribution Transformer MEPS:

In 2001, when negotiating with suppliers of distribution transformers, the AGO offered three year formal notice of MEPS to allow industry an orderly transition towards MEPS. Key industry representatives and their trade association delegates however agreed to much shorter development and notification periods to match the Canadian standards first established in 1995. MEPS for these products have been “accelerated” by as much as two years, for good commercial and environmental reasons, and will be implemented in 2003.

Case Study 3 Electric storage water heaters:

Australian Governments agreed to maintain the October 1999 MEPS levels at these levels for at least five years as an incentive to obtain supplier agreement. Unlike domestic refrigerators and freezers, the MEPS levels for mains pressure electric units (80 litres and larger) matched the best in the world when they were introduced in 1999. Indeed, they will not be exceeded until those (announced by the USA in January 2001) come into force in January 2004.

Whereas AGO is proposing a major change for refrigerators and freezers from 2004 to match US 2001 practice, the Australian MEPS levels for these water heaters may remain fixed until 2005 or 2006 (providing industry certainty for six or even seven years). The more stringent MEPS level of the USA operating from 2004 is the target that Australia seeks to match.

Case studies two and three illustrate the effectiveness of the AGO policy of matching world's best practice and the consensus approach enabled industry and government to work together in a cooperative fashion. All stakeholders can have confidence that they will be required to match the MEPS levels of major trading partner and that Australia will allow a reasonable lead time before overseas levels are imposed in our economy. Industry has certainty and in the case of several products (distribution transformers and commercial refrigeration) has agreed to accelerate implementation. The authors assert that this would not have been possible under the previous paradigm. Attachment 1 to this paper provides more detail of the new process.

CONCLUSION

The Australian model for MEPS deliberations is one of many potential designs for any country might consider when embarking on developing a MEPS standards program. The AGO recognises the hard work ahead of negotiating reasonable MEPS levels for a range of new products. It is satisfied the policy and procedural changes in 1999 have been proven to provide an improved framework to progress MEPS debates.

The premise of this paper is not that all countries should adopt a single model for MEPS but rather that countries can learn from the experiences of others in developing their own schemes⁵. This conference offers a real opportunity to share our experiences. The authors trust that this paper on the Australian MEPS journey through the 1990s will allow others to avoid the pitfalls of the statistical model in favour of a model based on matching MEPS levels imposed by your major markets or in your major product suppliers' country of origin.

LESSONS LEARNT IN AUSTRALIA

The improvements arising out of the revised Australian model might be characterised in the following list of considerations:

Clarity and Certainty

⁵ The genesis for Australia's new approach actually came after a description of the Japanese “Top Runner” program and debates within the AGO about the shape of our future program.

- Before October 1999, the Australian MEPS scheme was not recorded in law nor was it recorded in a set of administrative documents. Government officials as well as stakeholders were dis-empowered through that absence of “due process”. In Australia, the action of agreeing and recording the “international” MEPS process has opened it to robust critique and helped all parties understand and improve the scheme.

Industry Engagement

- To overcome unacceptable delays arising from poor process, the AGO has, in effect, reversed the onus of proposing MEPS levels. With a clear policy goal from government to match best practice and a published development timetable, industry representatives are empowered and resourced to propose final MEPS levels within a reasonable timetable. The publishing of “fall-back” MEPS levels, establishing a steering committee and publishing a timetable, create a positive environment where all parties are aware of their obligations to determine the final MEPS levels within a reasonable period.

Pragmatism

- Delays occur especially when applying MEPS to a new product and involving a new set of stakeholders for the first time. The delays are additional to other reasonable periods necessary to gather information, conduct testing and debate issues fully. The AGO will consider accepting MEPS levels lower than those matching our trading partner’s levels where substantial improvement is required. In balancing between what is possible and what is reasonable, the AGO acknowledges the first MEPS may need to spread the product development costs across a longer period. This staged approach to best practice carries an obligation upon all parties in later MEPS debates to match best practice as quickly as possible.

Collaboration

- The AGO seeks to promote MEPS in conjunction with major stakeholder groups (eg Industry Associations). In addition to improved communication to member companies, the AGO has found working with and promoting MEPS as a joint initiative has a number of additional benefits. Industries with products being considered for MEPS are often suspicious of government regulation. Joint industry and government promotion lessens suspicions and even allows “case studies” from other industries to confirm the mutual benefits that can be negotiated in a MEPS environment. The AGO has found early offers of collaboration lessens delays and enhances industry confidence in the process.

Transparency

- Procedural improvements act to empower stakeholders to not only influence consultation processes but improve outcomes. The AGO uses industry critics on steering committees as the means of focussing debates but also holds public meetings, uses newsletters and other communication tools to inform stakeholders of its MEPS plans. Matters in real dispute are readily identified and common strategies can be proposed to work through sectorial concerns. The AGO is also committed to building extra layers of consultation before the formal requirement for legislation can be enacted. Not only does this approach limit later disputes but the AGO has found that it also improves the eventual MEPS outcome.

Recognising our Limitations

- Australia is generally a technology taker rather than developer so our program allows time for world best technology to filter into our marketplace. It is unrealistic to demand Australian industry develop technologies in advance of the rest of the world; it is more realistic to expect Australian industry should adopt existing, proven technologies to meet emissions targets in a reasonable timeframe. In Australia, the focus of MEPS debates is shifting from claims about technical impossibility to debates about the dates of introduction (“when” not “if”).

Promoting Industry Success

- The AGO has agreed to assist industry to promote those products subject to MEPS and to acknowledge products that exceed MEPS. The Australian codes and standards program goes beyond the regulatory. The program adopts a holistic approach embracing voluntary industry initiatives and government support measures designed to capture synergies and economies of scale not available through mandatory schemes alone.

Political Support

- The program has the widespread support of stakeholders and this general support has also translated into political support from all political parties. The program demonstrates that product energy efficiency regulation is good for the environment, is good for the community and is good for product suppliers. The appliance label is one of the most visible government greenhouse abatement programs to the community and all governments contribute funding and resources to support the national program. Unlike some other climate change initiatives, it is difficult to identify critics of the program

The authors highlight that neither *technical rigor* nor *scientific merit* figure in the above list of considerations. The benefit to Australia in “matching” an existing MEPS level is avoiding engaging all parties in a debate about what should be our MEPS level; Europe, Asia or North America have already decided that for us.

The Australian debate is focussed on taking account of Australia’s special conditions to modify those predetermined levels and deciding when they start. It remains to be seen if this policy shift expedites and enhances our outcomes or just gives rise to a new range of debatable issues, but the AGO is more than hopeful.

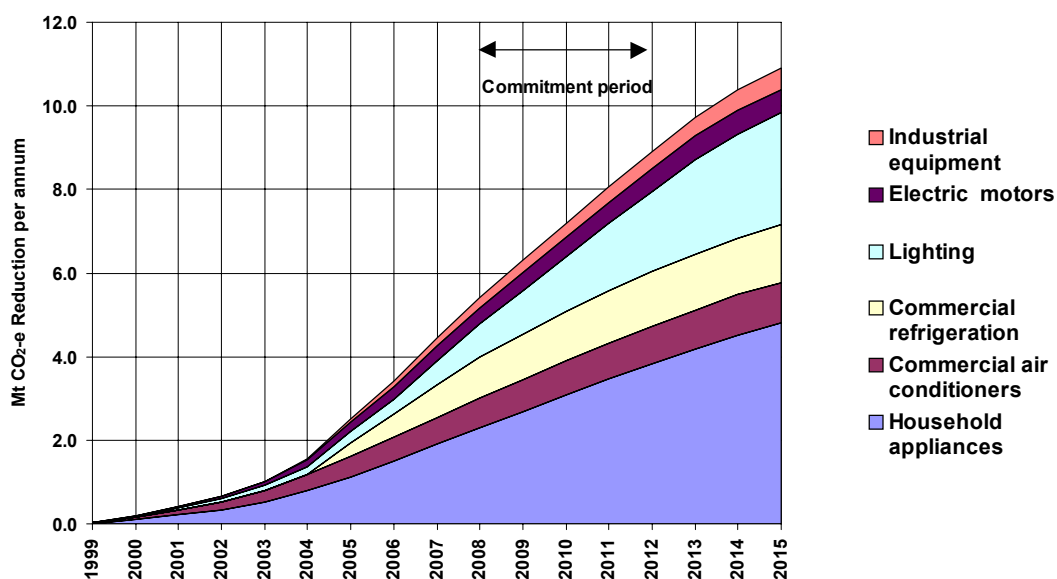
PROJECTIONS SURROUNDING THE NEW PROGRAM

These final paragraphs report projected savings over the next decade and demonstrate where the program is quietly projected to achieve real greenhouse abatement.

The combined positive projected greenhouse gas impacts of all mandatory Australian programs targeting product energy efficiency is estimated to be 81 million tonnes of carbon dioxide equivalent below BAU over the period 2000- 2015. Compare this impact with the 5 million tonnes saved during the first ten years of the program. By 2015, the program will save almost 11 million tonnes annually. Figure 4 provides a graphic illustration of these savings by product type.

Figure 4 Combined Projected Impacts of MEPS and Mandatory Labelling

Combined projected impacts of programs covered in this report



Moreover, the energy savings alone (even with a 10 per cent discount rate) will exceed \$30 per tonne abated. In other words, end users will save by using these more efficient products, the environment will avoid substantial greenhouse gases and the international competitiveness of Australian suppliers will be enhanced. It may not be the highest profile program in Australia (though 85 per cent of appliance shoppers recognise the mandatory label) but it does work.

REFERENCES

- APEC 1999, *Review of energy efficiency test standards and regulations in APEC member economies*, by Energy Efficient Strategies (Australia), November 1999. Published for APEC Secretariat, Singapore. APEC report 99-RE-01.5 ISBN 0-646-38672-7.
- EES 1999, *Analysis of GfK Appliance Sales Data - An analysis to assess energy consumption and performance trends of major household appliances in the Australian market from 1993 to 1997*, prepared by Energy Efficient Strategies for the AGO, February 1999.
- GWA 1993, *Benefits and Costs of Implementing Minimum Energy Performance Standards for Household Electrical Appliances in Australia*, Final Report, prepared by George Wilkenfeld and Associates, with Lawrence Berkeley Laboratory, July 1993.
- GWA 1999, *Regulatory Impact Statement – Energy Labelling and Minimum Energy Performance Standards for Household Electrical Appliances*, prepared for the AGO by George Wilkenfeld and Associates, with Energy Efficient Strategies, February 1999.
- GWA 2000, *Projected Combined Impacts from an Extended and Enhanced Program*, prepared for the AGO by George Wilkenfeld and Associates, March 2000.
- Harrington 1994, *Comparison of Household Refrigerator Efficiency Standards in the USA with those Proposed for Australia and Europe*, Lloyd Harrington, informal session presented to the ACEEE Summer Study, Pacific Grove, California, 28 August to 3 September 1994.
- NAEEEC 1999, *National Appliance and Equipment Energy Efficiency Program, Work Program 1999 – 2001*, prepared for the Australian New Zealand Minerals and Energy Council by the AGO, August 1999.
- NAEEEC 2001, *Future Directions 2002 –2004* A discussion paper, prepared for the Australian New Zealand Minerals and Energy Council by the AGO, March 2001
- NGS 1998, *National Greenhouse Strategy, A Strategic Framework for Advancing Australia’s Greenhouse Response*, prepared by the AGO, November 1998. ISBN: 1 876536 18 7.
- Turiel 1996, *Consensus Efficiency Standards for Refrigerators and Freezers – Providing Engineering/Economic Analyses to Aid the Process*, prepared by Isaac Turiel and Sajid Hakim, Lawrence Berkeley National Laboratory, Paper presented to ACEEE 1996, pp9.207 – 9.215.
- Upon request, the AGO will provide copies of these papers, some of which are on our website www.greenhouse.gov.au

ATTACHMENT ONE

DEVELOPING A CONSENSUS PROCESSES

This attachment is included to detail the collaborative approach to MEPS negotiations used in Australia. A range of procedural improvements have been agreed to better engage stakeholders, improve transparency and deliver more certainty to the process. These changes are best explained by summarising the new approach.

Step 1, the AGO releases a public discussion document detailing possible MEPS levels translated from those postulated for or operating within a major trading partner. These levels are derived from translating the MEPS levels from the best of our trading partners into levels in a form compatible with Australian Standards and attempt to take account of climate and market differences. The release of these proposed levels marks the beginning of the timetable.

Step 2, the AGO enters into negotiations with industry to consider modifying the proposed MEPS to take account of agreed variations in standards, climatic or competition issues or any other matter. The AGO uses a “steering committee”, comprising key industry and other stakeholders, as the mechanism for these negotiations. The committee provides a forum for stakeholders to provide public data and explanations in support of their proposed revisions of the AGO proposals. The aim is to develop a consensus position within the committee acceptable to all stakeholder groups and government officials, which can be presented to the Ministerial Council for endorsement. In the absence of agreement, the default position is the AGO published draft MEPS levels, which will be put to government if consensus cannot be developed within the committee.

Step 3, the AGO commissions formal regulatory impact statements (involving a detailed cost-benefit analysis modelling economic and social impacts together with formal consultation processes) on the proposed MEPS levels. Currently, MEPS levels are assessed within a “no regrets” framework (the energy savings over the life of the product should outweigh the net present value of the additional purchase cost of the re-engineered product to consumers). Environmental externalities such as greenhouse emissions are not included in these economic analyses though the AGO is exploring acceptable methods of costing greenhouse emissions in that measurement process. The formal consultation process provides an opportunity for all stakeholders to comment on and hopefully endorse the MEPS levels.

Step 4, the AGO obtains the necessary formal State and Territory Government approvals to use the relevant product standard (where the MEPS levels and testing procedure are stipulated) and to arrange for these matters to be called into regulation after the consultation process and economic analyses are completed. The AGO informs all suppliers of that product of the MEPS levels before the regulation comes into effect.