Equipment Minimum Energy Performance Standards and Best Practice

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Australia

- Australia is a federation of 6 states and 2 territories with 19 million people
- Energy efficiency is a core element of National Greenhouse Strategy
- Energy efficiency regulation is a State and territory matter, and Mutual Recognition Arrangements require national consistency
- National labelling program commenced in 1992 but the energy efficiency Standards program started in earnest late 1999 with regulatory MEPS
Current Government Policy

On track to Kyoto 108% target
Australian Greenhouse Office

• World’s first national agency dedicated to climate change

• The AGO manages energy efficiency by coordinating nationally consistent product end-use efficiency standards through State laws (NAEEEP – National Appliance and Equipment Energy Efficiency Program)

• Australian Standards for specific products set out the technical detail with Standards being called into State law
National Appliance and Equipment Energy Efficiency Program

- Mandatory minimum energy performance standards (MEPS) is the main regulatory tool used (if equipment doesn’t meet the standard it cannot be lawfully sold)
- Australian Government policy is to match world best regulatory practice with a negotiated delay or lag-time to facilitate technology transfer
  - debate about when, not whether
National Appliance and Equipment Energy Efficiency Program

• Workplan for 2002-2004 launched by Minister Macfarlane in March 2002 (Chair MCE)
• Workplan includes target products for potential regulation (copy available on AGO web site)
  – Refrigeration (domestic and commercial)
  – Airconditioning (domestic and commercial)
  – Water heating (domestic and commercial)
  – Electric motors, transformers
Industrial Equipment Subject to MEPS Regulation

- MEPS first introduced for domestic refrigeration and electric hot water in 1999
- Electric motor MEPS (Eff 2 level) with High Efficiency (Eff 1 level) from October 2001
- Packaged airconditioners (up to 65kW) from October 2001
- Magnetic ballasts for fluorescent lights (European B2 level) from March 2003
MEPS Development Program for Industrial Equipment

- 2004
  - Fluorescent lamps
  - Distribution transformers (up to 2.5MVA)
  - Commercial refrigeration (stand-alones/remotes)
- 2006
  - Electric motor (Eff 1) and High Efficiency
  - Three-phase airconditioners (up to 65kW)
October 2001 MEPS commence for 3-phase motors 0.73kW <185kW

- Australian Standard based on European “eff 2” level with “High Efficiency” defined as European “eff 1” level
- Announced intention in 2001 to re-visit MEPS level
- Consultation with industry on 2nd round MEPS began in 2002 with feasibility study
- Testing industry support in 2003 for moving to best regulatory practice by 2006 (“eff 1” with new IEC standard)
Comparative Standards Levels

2 Pole Motors

Comparative Standards Levels

• Originally government sought to match 1995 Canadian MEPS levels (best regulatory practice)

• Both Europe and the USA are considering tougher MEPS levels than Canada

• Australian industry has agreed to MEPS more stringent in places than the Canadian levels
Projected Emission Reductions

Projected Emission Reductions by State (2001-30)
Australian industry has agreed to these MEPS levels for introduction in 2004.

All government agencies have agreed to these levels and the final decision by the Ministerial Council on Energy is expected soon.

MEPS applies to the sale of products, based on the date of manufacture or import.
The trigger for another round of MEPS is when a major economy regulates these products with more stringent levels.

Australia will match any improvement in transformer efficiency from North America, Europe or Asia with a delay of several years.

Should the North American levels increase as proposed, Australia will follow.
Three – phase air conditioners

- 2001 MEPS based on 1994 performance level, aiming to cut bottom 50% – 2nd stage has begun
- In mid 2002, industry agreed in principle to match or exceed the USA levels (world best regulatory practice) and harmonise with single phase.
- The new MEPS to commence not earlier than 2007, harmonised with MEPS for single phase (two-stage, 2004 and 2007)
Three-phase Air Conditioners

MEPS Proposals

3-Phase AC

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<th>Cooling Capacity (kW)</th>
<th>EER (W/W)</th>
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- Australia Units
- PAC - Cooling & Reverse Cycle, Australia 2000
- Cooling + Reverse Cycle, Proposed MEPS 2007
- Cooling + Reverse Cycle, Proposed HE Level (MEPS 2012?)
Commercial Refrigeration

- In 2001, government proposed Canadian MEPS as target in 2003/2004
- In 2002, industry representatives proposed more stringent MEPS levels than world best levels
- AS 1731 (test method) was published in April 2003, matching European Standard PREN 441
- MEPS targeted to commence in 2004 after a regulatory impact statement and MCE approval
In the context of the regulatory elements of NAEEEP, industry continues to emphasise the need for compliance with energy efficiency requirements.

Governments recognise the need to enforce MEPS and labelling requirements to support industry and protect consumers.

We hope the recent action by the ACCC over a washing machine has strengthened industry confidence.

We have supported significant cooperative best practice activities by industry to complement regulatory change.
DITR manages EE Best Practice Program, and agencies such as SEAV, SEDA also run industry EE programs.

EEBP (www.industry.gov.au/energybestpractice) has an industry sectoral focus, with benchmarking and best practice case studies (e.g. bakeries, wineries).

Motor Solutions Online (www.industry.gov.au/motors) has Motor Sector software and a online data base of motors available in Australia – it is designed to drive best practice in motor selection.

Online registration of electric motors for MEPS is now being automatically linked to the motors catalogue and appropriate data fields are populated.
Projected CO2 Impact of NAEEEP

- Standby Power 2004
- Motors
- Commercial Refrigeration
- Transformers
- Lamps & Ballasts
- Air Con
- Appliances 1999
Thank You!

Australian Greenhouse Office

The lead Commonwealth agency on greenhouse matters
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http://www.greenhouse.gov.au
http://www.energyrating.gov.au
http://www.energyefficient.com.au
http://www.yourhome.gov.au