



Energy Round Table Meetings – April 2007 – For Whitegoods and Air Conditioners

As part of an ongoing process of consultation between industry and government, meetings were held recently with key stakeholders from within the whitegoods and air conditioning sectors.

The first meeting on 12 April 2007 discussed a range of issues relating to both whitegoods and air conditioners. Key discussion points were:

- Options regarding a revised algorithm, standby and water consumption for clothes dryers
- Part load testing for energy and water consumption for clothes washers and a possible round robin
- Registration options for 1 watt standby for all electrical products
- Key dates for and communication of label transition arrangements for refrigerators and air conditioners
- Air conditioner inverter MEPS allowance
- Clear definition for commercial air conditioners.

A summary report from the meeting is attached.

The Standards Australia committee EL15/16 on air conditioners met on 20 April 2007 to examine a range of issues. Key discussion points were:

- Consideration of an E3 discussion paper proposing more stringent 'part load' MEPS requirements for variable output air conditioners (copy available from the www.energyrating.gov.au in the electronic library)
- A range of air conditioner MEPS and labelling regulatory issues to be covered in forthcoming amendments and revisions to AS/NZS3823.2
- A range of issues around air conditioner standards and test methods.

A summary report from the meeting is attached.

Comments on any of the items discussed at the meetings may be sent to:

Whitegoods – simone.tiele@environment.gov.au or

Air Conditioning – eva.oberender@environment.gov.au

Energy Round Table - Summary

12 April 2007, Standards Australia

Key industry representatives met on 12 April 2007 with AGO staff to discuss a range of issues mainly relating energy labelling and MEPS for whitegoods and air conditioners. While the meeting was informal, the intent was to plan a range of forthcoming changes which will affect the regulatory requirements for these products. The meeting has no particular status, but the recommendations should be considered by the relevant committees and parties as required for ratification and implementation.

Clothes Dryers

Options for a revised algorithm were discussed. The possible availability of a heat pump dryer on the market could impact on the range of star ratings available. There is little data on actual use and this is required to revise algorithms. One option may be for the label to show low usage and high usage. Key action points were:

- Propose MEPS on standby for dryers which would be implemented as an adjunct to dryer energy labelling in order to deal with the issue in a timely manner.
- Recommend that water consumption be shown on the dryer energy label.
- Include Amendment 1 (just published for clothes washers) to permit harmonised revised load items to be used in Part 1 for dryers. Check on availability of polyester-cotton shirt for dryer load.
- Form a working group to cover off dryer testing issues (get Choice to do some extra tests for IEC and AS/NZS)
- Implement a combined registration system for combination washer-dryers
- Make sure that water consumption for dryers is displayed on the energy rating website and is in the CSV download file.

Clothes Washers

Part load testing for energy and water consumption is a key area for clothes washers and planning to implement this needs to be commenced. It was agreed that performance requirements would need to be met at rated capacity and part load. If part load data was to be included, a new algorithm would need to be devised for clothes washers. This could be bundled with an increase in the minimum spin performance requirement and efficiency standards for water and energy. Key action points were:

- Obtain as much data as possible on consumer loading patterns to assist in planning for introduction of part load requirements.
- Look at a proposal to mandate WEI of 0.9 or 0.85 as part of MEPS/WES for clothes washers to reduce dryer energy consumption
- Undertake a clothes washer round robin as soon as possible with a particular emphasis on rinse performance
- investigate differences in rinse performance results – form a lab working group to investigate issues and prepare any proposals for consideration by EL15/4 (why does validity check not work, sump volume, load effects, dosing method effects).

- It was suggested that some information be added to the standard to indicate that rinse performance typically deteriorates rapidly with small reductions (or changes) in water consumption at or near the rinse performance limit.

Standby – 1 Watt requirements for all products

Ministers have announced a mandatory maximum 1 Watt requirement for all products by 2012. It was agreed that traditional registration of individual products could be problematic where the product is not otherwise regulated. Some alternative options for implementation of this program were discussed. One option was the use of supplier code which would be displayed on all relevant products - the supplier certifies that all products supplied with their code meet the requirements of the standard (standby). The supplier would be required to keep relevant records of products supplied to the market. There would be an annual supplier registration to keep the system up to date – they could nominate/update the types of products that they supply. This system could use compatible supplier numbers with electrical safety and/or EMC and/or RCM. Sanctions for non-compliance were not discussed.

New Energy Label for Refrigerators and Air Conditioners

Both refrigerators and air conditioners will have a new energy label and new algorithm in 2009. The group reviewed a range of possible design options for testing with consumer focus groups which are planned within the next month. Main points agreed were:

- No major changes to label design
- Trial different colours for the bottom band – purple seems a favoured option
- Trial a range of wording for transition information (star rating on old scale)
- Look at enhancement of the website wording on the label, trial option of replacing ENERGY RATING in black at the top with www.energyrating.gov.au
- Assess understanding of Energy Star as an endorsement label
- Look at options for a wide shallow label for air conditioners

Other Transition Issues

All products imported or manufactured after October 2009 to carry the new energy label. Start dates – from October 2008 new label with old star also displayed in a green band (transition wording) can be affixed, from April 2009 new label with no green bar can be affixed, green bars not on display after 2009 (recommended?). Place a new label (or generic version) on product box (packaging) to indicate the product inside has a new label attached to assist retailers to clear older stock. Prepare guideline for retailers to move all older floor stock during the transition to avoid problems later.

Other issues:

- Communicate with retailers to try to ensure a smooth transition and all products on display carry a new label by October 2009

- amendment to AC Part 2 to delete 2008 levels and note that new MEPS levels for single and three phase products will be investigated in the near future
- AC 2008 levels – clarify whether single phase and three phase alignment for ducted units is deleted or not.
- Simone to write to all refrigerator registration holders (and CESA, AEEMA and AREEMA) proposing a conversion from average to maximum and to contact us if they wish to discuss in more detail – attach discussion paper with proposal.

AC Inverter MEPS Allowance

The discussion paper circulated to EL15/16 will be discussed at standards meeting on 20 April 2007. A range of view on the allowance were viewed with no firm consensus at the meeting. If there is no consensus at the standards committee, a government working group may have to be formed to finalise the issue. It was suggested that a weighted EER at rated capacity and say 75% could be used as the basis for star rating to provide an incentive for high efficiency at part load – to be considered further.

Commercial Air Conditioner Definition

It was noted that the term commercial air conditioner has two applications in AS/NZS3823.2.

- Non-ducted commercial only single phase air conditioners are exempt from energy labelling;
- Commercial air conditioners were exempted from the accelerated MEPS levels that applied for single phase non-ducted units less than 7.5kW in April 2006 – these units (which were already subjected to MEPS in October 2004) will have a MEPS increase in October 2007 as originally proposed.

The main debate is whether the commercial “exemptions” above are intended to cover the application of an individual air conditioner or whether it should be more correctly applied to a general type or their designed/intended use. In general terms, it was felt that the latter is the intent of the standard.

It was agreed that the standard AS/NZS3823.2 should provide a clear definition of “commercial” air conditioners to assist with the enforcement of energy labelling (refer dot point 1 above). It was noted that any amendment to the standard would take some time to prepare and implement therefore this would have little if any impact on the timing of MEPS for these units (refer dot point 2 above – April 2006 vs October 2007) as it is unlikely to be published much before October 2007.

Air Conditioners – EL15/16

Meeting Summary – Key Outcomes

EL15/16 (air conditioners) met on 20 April 2007 in Sydney. This document outlines some of the key decisions that were made at or presented to the meeting. This is a public summary that is intended to communicate the most important aspects to the wider community as many key stakeholders may not be members of the standards committee (noting that formal committee documents are normally treated as committee-in-confidence). This summary has been prepared by EES for the Australian Greenhouse Office.

Variable Output Air Conditioner MEPS

The discussion paper on this issue, prepared by EES, was tabled and reviewed in detail. The proposal from government is to tighten the current “part load” MEPS allowance for these units (from the ability to claim compliance at any load down to 50% of rated capacity). While this is strictly not a decision for the standards committee, there was a broad consensus that government should prepare a formal public consultation proposal for a change to the current MEPS requirements for these products as follows:

- Delete current variable output allowance in Clause 3.4 and replace this with a requirement that the measured EER at rated output cannot be less than 95% of MEPS. For any unit which does not meet 100% MEPS at rated capacity, data must also be supplied to demonstrate that there is at least one part load point that meets or exceeds a new variable output MEPS compliance line that notionally joins 95% MEPS at rated output and 110% of MEPS at 50% of rated output. The part load point selected must meet or exceed the MEPS level. This is illustrated below (solid line).
- This requirement would be mandatory for all registrations from October 2008. Existing registrations that use part load MEPS compliance would only be valid until April 2009 and would be grandfathered from that date (would be valid for existing stock but not for new imports or production).

In the figure below, if a product EER at rated capacity falls into the range 0.95 to ≤ 1.00 MEPS (inside the blue box) then the supplier has to supply a second part load point that shows compliances above the part load MEPS line shown.

Consider the 3 examples illustrated in the figure below:

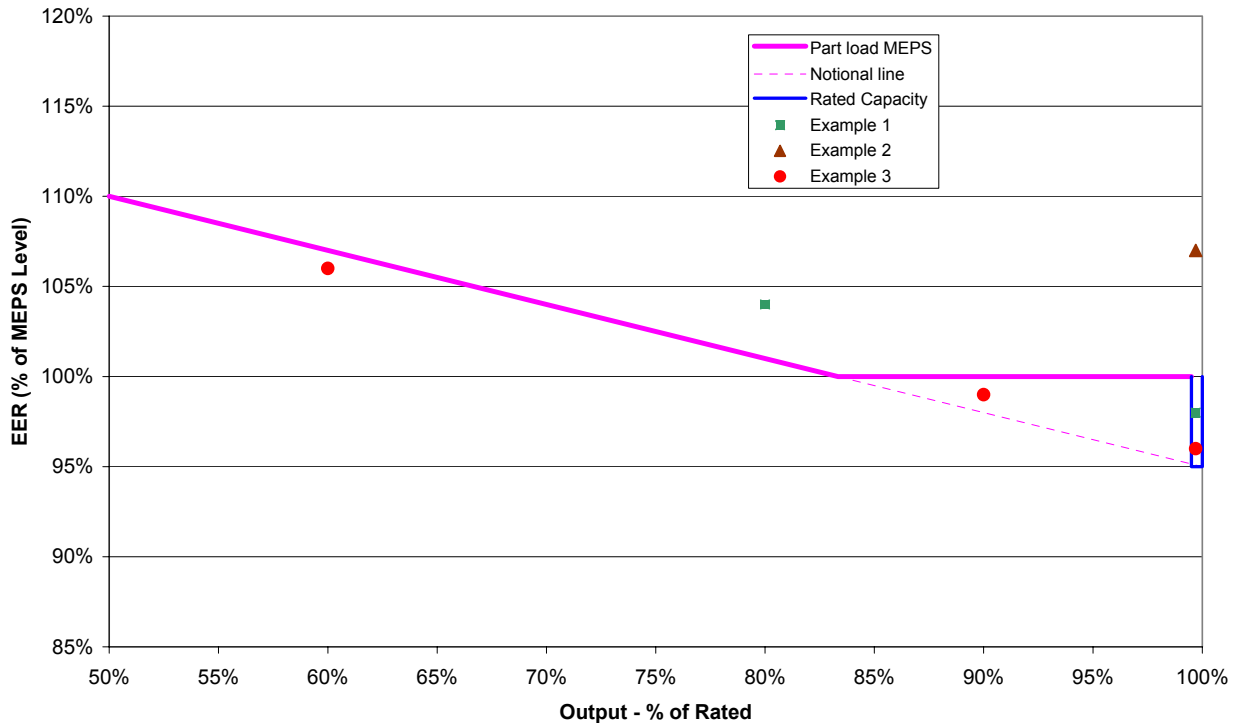
Example 1: At rated capacity the EER is 0.98 MEPS so a part load point that complies with the new requirements also has to be supplied. The second point at 0.80 of rated capacity with an EER of 1.04 MEPS does comply.

Example 2: The EER of the unit at rated capacity is greater than the MEPS level so no part load information is required for compliance. (no change from the current standard)

Example 3: At rated capacity the EER is 0.96 MEPS so a part load point that complies with the new requirements also has to be supplied. The second point at 0.90 of rated

capacity with an EER of 0.99 MEPS does **NOT** comply. The third point at 0.60 of rated capacity with an EER of 1.06 MEPS also does **NOT** comply. This model would not be permitted under the new rules.

Any model which has an EER at rated capacity of less than 0.95 MEPS would not meet the requirements, irrespective of its part load performance.



Other Variable Output Issues

- For inverter units, registrations would require reporting of the maximum continuous frequency, the frequency at rated capacity and the frequency at part load point (if used) of the compressor and any other inverter driven components (e.g. fans). Comparable data for non-inverter variable output products at part load as required would also be recorded.
- While it will remain a requirement to supply to regulators any information on how to lock the speed of inverter systems during testing as part of the registration process, it was agreed that wording should be included in the standard to encourage manufacturers to make this information more readily available. Manufacturers should also be encouraged to make sure that locking the inverter speed is possible using controls on the product or using equipment normally supplied with the product.

Other Regulatory Issues to be Covered in Amendments and Revisions

- A range of energy label design options for 2009 to be trialled at forthcoming focus groups discussed at the industry round table on 12 April 2007 were noted.
- Withdrawal of text on validity criteria for labelling and MEPS from the standard in the next Part 2 revision (later 2007), noting that these are part of the Administrative Guidelines.
- MEPS for all commercial air conditioners (except those covered by the exemption clause) was confirmed.
- Scope of mandatory energy labelling to be altered to cover all single phase non-ducted products (deletion of the current labelling exemption for “commercial” products). Any exemption from mandatory energy labelling would be required from regulators on a model by model basis where the supplier can satisfy regulators that the product is designed for non-residential applications; and/or the product would never be on display for sale through retail outlets; and/or product is not promoted in any catalogue or advertising material that could be interpreted as suitable for some residential applications.
- The forthcoming amendment to Part 2 would confirm that MEPS levels in Table 3.1 marked with note (d) for 2008 are to be deleted, but that a review of possible future MEPS for all single and three phase products is under way.
- The forthcoming amendment to Part 2 would confirm the single phase ducted >10kW MEPS for October 2008 at 2.75 (to harmonise single and three phase requirements), Government will ensure that the required public consultation processes to implement this are completed (in parallel with part load MEPS changes for variable output units above).

Standards and Test Methods

The following issues were discussed and generally agreed:

- ISO FDIS versions of ISO5151, ISO13253 and ISO15042 to be circulated to committee members.
- A working group to be formed to develop draft Part 1.5 based on ISO15042 (multi-split systems) and to develop possible MEPS levels for consideration by government that are equivalent to comparable single split products.
- A second working group to be formed to develop necessary amendments to new editions of ISO5151 and ISO13253 once they are published by ISO, including more detailed guidance on the testing of variable output products (particularly inverters).
- Ensure that AS/NZS clones of ISO standards specify the pipe length to 7.5m for split systems.
- It was noted that a new test method from close controlled air conditioners (Part 1.4), which is based on an ISO draft, will be released for public comment in May 2007. A cost benefit analysis for proposed MEPS levels for these products is in preparation.
- Allan Tayler was confirmed as the ISO delegate for Australia to ISO TC86 SC6 and various working groups for the time being.

END