## Comments on 2/23/04 ENERGY STAR External Power Supply Specification

As the lead Australian Government Agency on Greenhouse matters, the Australian Greenhouse Office (AGO) has worked with the US EPA over a number of years, managing Australia's role as an international partner of ENERGY STAR.

Since 2003, Australia has supported the development of an ENERGY STAR labelling program for external power supplies, and the development of a test method which can be used around the world. The AGO plans to use this test method as the basis for a new Australian Standard for external power supplies, published prior to the launch of minimum energy performance standards for these products in April 2006.

Although Australia proposes to introduce mandatory efficiency standards for external power supplies, we fully endorse the EPA's proposals as contained in the 2/23/04 specification.

In addition, we offer the following comments:

- With respect to power supplies that can operate on more than one voltage, we support the use of the <u>lower</u> set of average efficiency values for determining compliance.
- We would also like to see the EPA support the proposal to see a 'manufacturer's mark' applied to external
  power supplies relating to the efficiency of each product. This is further explained in *Attachment A* below.
  This mark would complement any consumer information label, such as ENERGY STAR, and assist in
  tracking shifts in the average efficiency of shipments, enabling effective monitoring of the EPA program.

Dr Tony Marker Manager Equipment, Appliances and Transport Team

19 April 2004

## Attachment A: Regulating External Power Supplies in Australia

The following document summarises the position of the Australian Government with respect to measures designed to stimulate the uptake of more efficient external power supplies. The Australian Greenhouse Office has publicly announced the introduction of mandatory Minimum Energy Performance Standards (MEPS) for single voltage external AC-DC power supplies, to come into effect by 1 April 2006.

Australia will publish a two part standard, containing the test standard (Part 1) and the MEPS levels (Part 2), and these will be called up in relevant legislation. The test standard will be based the method developed for the US EPA "Test Method for Calculating the Energy Efficiency of Single-Voltage External AC-DC Power Supplies (February 13, 2004)."

Australia will also set a "High Efficiency" level in the Australian Standard, which prevents product not meeting that level from advertising such claims to customers. The "High Efficiency" level will also indicate to manufacturers the future MEPS level when government wishes to enforce a more stringent requirement. At this stage it is likely that the "High Efficiency" level will be the same as that adopted as the MEPS level in California in 2006.

The AGO and Standards Australia will also consider proposing that the test standard (Part 1) is adopted as an IEC standard.

Australia would like to suggest that other jurisdictions with an interest in introducing measures for power supplies to consider the following proposals.

- 1. That all products be identified by some form of internationally accepted efficiency mark (ie 0-5); and
- 2. That we agree to a set of performance criteria which relates to each mark.

The reasons and benefits of these proposals are explained below.

There is likely to be considerable policy development over the next few years as countries determine appropriate measures for external power supplies, and in this context we should be aware that different countries may want to introduce programs at varying stringency levels.

At this stage, it seems important that (i) the same test method is used by all, (ii) that as many countries as possible are encouraged to target external power supplies, and (iii) that stringency is increased over time ie. that we are all moving towards the same goal.

Because of the work already put into developing a robust test method, and the intention to make this an internationally recognised (IEC) standard, it is likely that this will be used wherever a test method for external power supplies is required. Having it in place already provides encouragement to countries considering action in this area, however further stimulation may be provided by resolving some of the key enforcement issues. Note that because of the sheer number of external power supplies being sold, enforcing efficiency measures (either labelling or MEPS) for these products raises particular issues.

Each efficiency level would comprise no-load and average efficiency requirements, making a suite of 'efficiency' options, one of which could be readily adopted by a jurisdiction, depending on the degree of impact they required. Not only would this decrease the chance that efficiency levels will be random, it also encourages stringency levels to progress in defined steps towards a common goal.

Figure 1 illustrates the way in which this scale could work (although each level would comprise both the requirements for active mode efficiency and no-load power consumption). In this example, the proposed ENERGY STAR criteria (in active mode) is shown as line ②, and the possible Australian MEPS level as line ②. An indicative Californian MEPS level and Australian "High Efficiency" level is represented by line ③. The exact position for levels ① to ⑤ are examples only at this stage, and further examination may reveal the need for more levels and/or revised criteria.

Table 1 provides a brief description of each level and the mark associated with it. The relative stringency of each is illustrated by the proportion of the sample of 600 tested products which meet each of these requirements.

Establishing a set of levels at this stage may have a further benefit. By organising manufacturers to indicate the efficiency of each product on the external power supply, for example by stamping products with the appropriate  $\bullet$  to  $\bullet$  indicator, each country would be able to clearly check which products met their criteria. This mark could equally be an alphabetical indicator if this was thought to be more suitable. However it is important to realise that this indicator is not intended as a consumer information label, but to demonstrate that the product had been tested to the standard and was rated at a given level. A similar process is used for lamp ballasts in some countries.

This would achieve a number of important objectives:

- It would make enforcement activities considerably simpler for each jurisdiction and therefore make programs more likely to be successful;
- Individual testing requirements for each country would not be needed manufacturers would undertake one
  test per model and this would be recognised wherever the product was sold;
- It would facilitate program evaluation, enabling the tracking of shipments of power supplies by efficiency level to assess the movement in the average efficiency levels of sales.

Average Efficiency in Active Mode 100% 80% Average Efficiency 60% 40% 20% 0% 20 120 140 160 40 60 100 80 Nameplate Output Power (Watts)

Figure 1: Draft Average Active Mode Efficiency Levels

Table 1: Draft Average All Mode Efficiency Levels

Mark	Description	% of products qualifying
6	Possible top efficiency level	9%
4	Proposed EPA ENERGY STAR criteria.  No load requirements consistent with Code of Conduct voluntary requirements in 2005	16%
3	Possible CEC minimum energy performance criteria. Possible Australian High Efficiency category	26%
2	Possible Australian minimum energy performance criteria	40%
0	Possible entry level minimum energy performance criteria	60%
0	Marking for all products with performances less than indicated for category •	

## For further information contact:

Shane Holt, Australian Greenhouse Office. Email: Shane.Holt@greenhouse.gov.au

Mark Ellis, Mark Ellis & Associates. Email: ellism@ozemail.com.au