



LoadDown

THE STANDBY POWER NEWSLETTER

4^E

Efficient Electrical End-Use Equipment
International Energy Agency



ASIA-PACIFIC PARTNERSHIP
BUILDING AND APPLIANCE TASKFORCE



This newsletter is supported by the International Energy Agency (IEA) Efficient Electrical End-Use Equipment (4E) Implementing Agreement and the Asia Pacific Partnership for Clean Development and Climate (APP).

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This edition of *Load Down* includes

- **APEC¹ International Standby Power Conference – You're Invited**
- **What really happened in Paris? - Network Standby Uncovered.**
- **What's New – 2009/10 Data**

APEC International Standby Power Conference – You're Invited

APEC as part of its Alignment of National Standby Power Approaches project is staging an International Standby Power Conference in Tokyo 19-21 October 2010. The conference is also supported by APP and the 4E Standby Annex. This event aims to bring together both the leading technical and policy experts in the standby field. Sessions will focus on the technological possibilities for reducing low power mode consumption, new issues arising from network products, and how product manufacturers are tackling these problems. There will be presentations on current and proposed

policy outcomes as well as a discussion on what factors contribute to successful policy in this area and investigate key principles that can be shared across borders.

The program is currently being finalized, however if you are interested in contributing please contact Melissa at Melissa@maiaconsulting.com.au. More details on the program and registration information will be available shortly at <http://www.energyrating.gov.au/standbydata/index.html>

continued overleaf



**Asia-Pacific
Economic Cooperation**

**Advancing Free Trade
for Asia-Pacific Prosperity**



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¹ Asia-Pacific Economic Cooperation (APEC)

What Really Happened in Paris? - Network Standby Uncovered

Network standby is an area of growing importance and concern. Over the past decade, many Governments, manufacturers and consumers have developed a strong interest in minimizing excessive standby power and there are a range of mandatory and voluntary programs in place targeting the reduction of energy used when products are in low power modes. However with advances in technology and the increase in networking of products, new problems with standby power have surfaced; Network low power modes. The rapidly increasing number of networked products and the magnitude of the energy used within these networks means it is extremely important that governments quickly find solutions to network standby.

With this in mind a variety of standby power experts including both APP and 4E representatives, met in Paris during April. Issues associated with reducing the energy used by network appliances in low power modes were discussed at length in an effort to increase understanding of the nature of the problem and the possibilities for tackling network standby. The meeting identified ten priority projects which it hopes will clearly identify the problems and possible solutions to energy waste associated with networks.

While these priority projects will provide a platform to commence from, the release of a scoping study in August will create the framework for future work. The study

will summarise developments in this field and highlight the technical and policy opportunities to reduce network standby. It will map the way forward for network standby.

Any move to curb energy waste associated with network capability will require the cooperation of all stakeholders. All parties were in agreement that energy efficiency should not constrain networked devices providing their services, however those services should be provided using energy as efficiently as possible. Standard development, government policy and improved design will have to move forward together. The priority projects proposed by the Paris meeting will enable fast tracking and the commencement of collaborations that will establish a baseline develop test methods, investigate suitable policy tools and an implementation pathway to propel the issues surrounding network standby forward.

Through collaboration and cooperation of all parties tackling this issue together, significant impact on the energy consumption of networked products is expected. With demand for products that have network connectivity only likely to increase in the future, it is important to move on these issues without delay, containing unnecessary energy waste and ensuring service and function are provided as efficiently as possible.

Project 1:	Network standby scoping study
Project 2:	Global estimates of network standby energy
Project 3:	Proof of concept project – detailed exploration of four products
Project 4:	Proof of concept project – investigation of power use related to function
Project 5:	Proof of concept project – cutting edge technology feasibility study
Project 6:	Proof of concept project – list of exceptional best practice examples
Project 7:	Map Functions into modes for some (common) product types
Project 8:	International battery charger test method
Project 9:	Guiding principles
Project 10:	Standard reporting of identity and power information over network



Sharing the load – International Co-operation

Since November 2009 the APP, 4E and SELINA² standby projects have worked together building relationships and sharing the benefits of cooperation. International co-operation helps to avoid duplication of effort and ensures that policies adopted by different governments and regions are harmonised. In new and complex areas such as Network Standby the importance of International co-operation becomes even more crucial. It was with this understanding that representatives from the Paris Network Standby meeting travelled to Brussels to meet European Ecodesign experts working on the Lot 26, ‘networked standby losses of energy using products’. The meeting allowed the two groups to discuss approaches of dealing with network standby issues and share their progress to date. The meeting fostered an informal dialogue between consultants for APP, 4E and the EU Lot 26 project. This dialogue aims to ensure both parties benefit by sharing knowledge and experience of the latest developments in network standby. It is expected the two groups will continue providing support and feedback for each other’s projects, helping to develop a global approach to network standby that is relevant to all countries.

2 Intelligent Energy Europe (IEE): Standby and Off-Mode Energy Losses In New Appliances Measured in Shops (SELINA) project (see www.selina-project.eu)

What's New - Latest Data

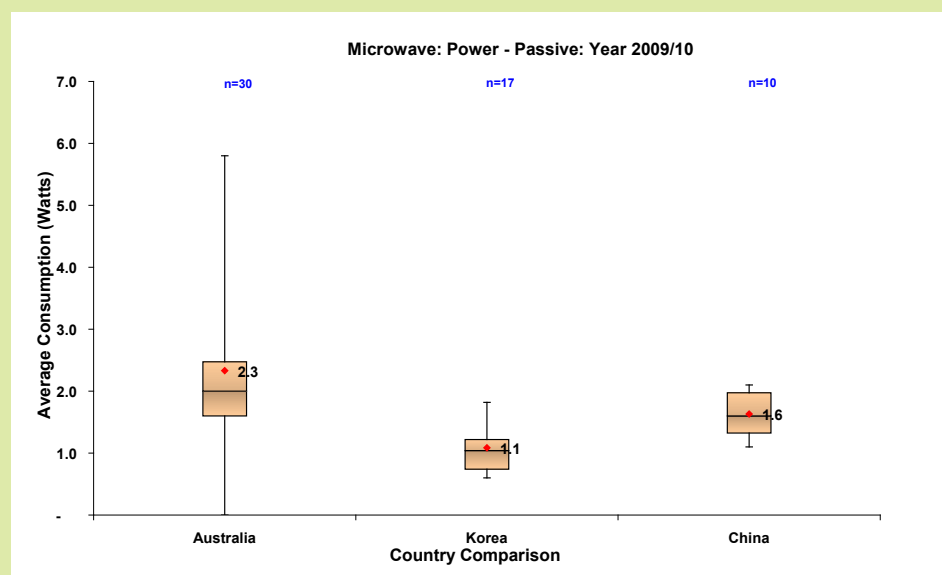
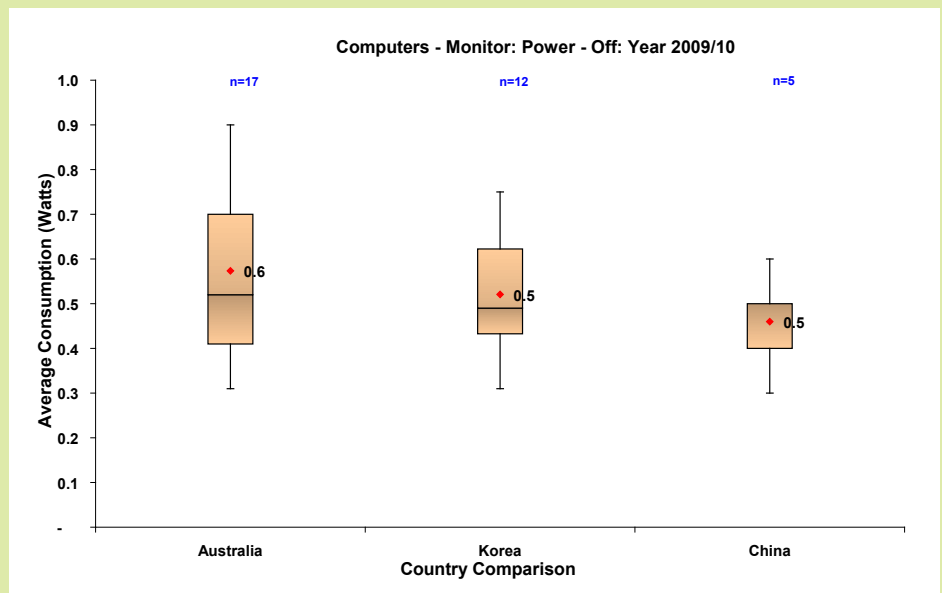
The latest data and charts from the basket of products surveys have been produced and are available on the APP website <http://www.energyrating.gov.au/standbydata/app/>. As shown in the table nearly 4000 products have been sampled since 2007 in APP member countries. In addition to this another 7000 measurements have been made using the APP methodology in Europe. During the next 12 months at least 3 countries have already planned to undertake further survey work, including India which is currently undertaking its largest survey to date.

In 2009/10 comparison data was provided by Australia, China and Korea. A few examples are presented here however charts for all products measured are available on the web site. For some globally traded products like computers the products seem ubiquitous and all readings irrespective of country were the same; for example computer monitor data in off mode was similar for all three countries, with average off at around 0.5 watts. No monitor was found to have off mode above 1 watt. There were at least 10 different brands included in the study.

All three countries were able to collect data on microwave ovens in passive standby. Both Korea and China found average consumption and the range of consumption to be lower than the models found in Australia. As shown in the chart below, Australia's average consumption of 2.3 watts was more than double Korea's; with most models being greater than the highest consuming Korean model. Korea, which now requires microwave ovens to display a warning label when standby consumption is greater than 1 watt, was alone in finding the vast majority of units recording less than 1 watt in standby. In fact outside of Korea there was only one unit recording less than one watt.

The example presented in microwaves was reversed for DVD players, where most models found in Australia consume less than the Korean models in passive standby. The Australian and Chinese average consumption in passive standby

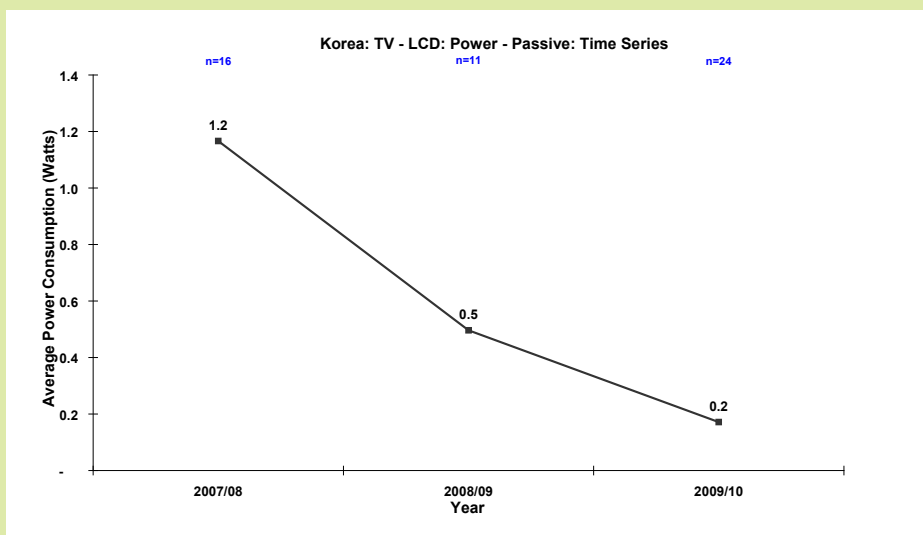
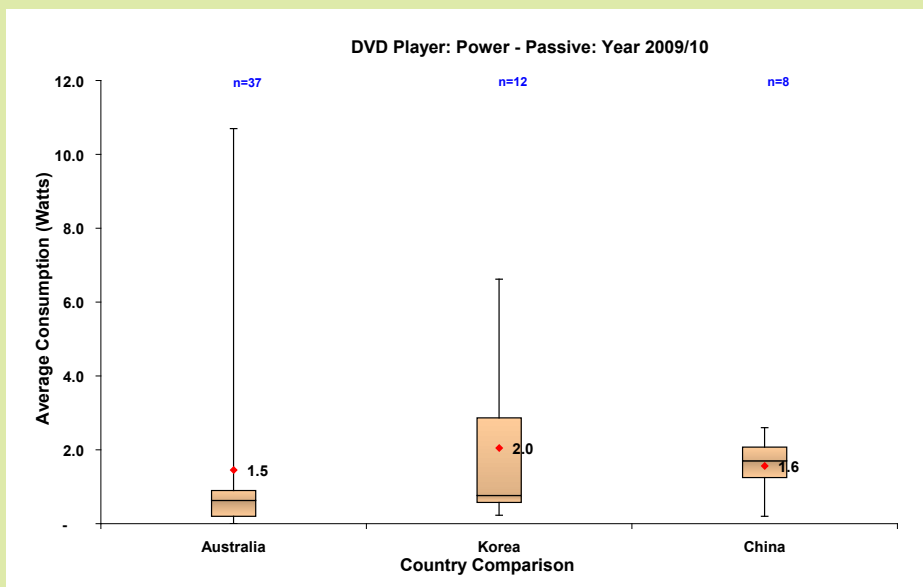
No of Appliances measured				
Country	2007/08	2008/09	2009/10	Next Scheduled Test
APP Project Participants				
Australia*	649	517	632	Nov 2010
Canada	1154	-		
Korea	119	137	171	Oct 2010
China	-	-	82	
India	123	-		July 2010
Japan	-	-	Trial Sample	
USA	113	135		
Other				
Europe (SELINA)	-	-	6000	June 2011
Czech Republic	561	-	500 ^a	*SELINA Measurements
Hungary	500	-		
New Zealand	353	-		



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was almost identical at 1.5w and 1.6w respectively. However the range of consumption in each country was quite different. With Australian models clustered at the low end with a few extreme high end readings. The Chinese models were bunched together in a much smaller range with the bulk of models at the top of that range. DVD players are subject to the same regulation as Microwaves in Korea and it should be noted that more than half the models were consuming less than 1 watt.

In addition to country comparison charts, time series data is also available for those countries that have measurements from at least 3 different years. Korea became the second country after Australia to have time series data available. As can be seen from the example of LCD TV's in passive mode, these charts allow for trend identification. In this case it would appear that passive standby power consumption is on the decline retreating from 1.2 watts in 2007/08 to 0.2 watts in 2009/10. The standby warning label came into force for televisions in Korea in 2009.



Next Edition.....

- > **Counting Down to Tokyo - More on the APEC Conference**
- > **Progressing Network Standby**

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