

LoadDown

THE STANDBY POWER NEWSLETTER



Load Down is supported by the International Energy Agency (IEA) Efficient Electrical End-Use Equipment (4E) Implementing Agreement.

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This edition of *Load Down* includes

- **APP Standby Project Migration**
- **4E Outcomes from Zurich**
- **Latest News from Lot 26 Study**
- **Australian Store Survey**

APP Standby Project Migration

The Asia-Pacific Partnership on Clean Development and Climate (APP) formally concluded on 5 April 2011. The partnership had been in existence since 2006 and successfully fostered public and private sector cooperation on clean development and climate within its seven partner countries. Significant

opportunities have arisen to expand and share this work beyond the APP group, hence a decision was made to conclude the partnership and migrate activities into other multilateral efforts.

The APP Alignment of National Standby Power Approaches project submitted a final status report in February 2011. The project, which began in 2007, had completed the first two stages: development of a common approach to achieve lower standby and the ongoing maintenance of an annual reporting function measuring the standby of new products. More recently the project had begun looking at ways to reduce standby power in the relatively new area of network

connected products. Several consultants are still undertaking work in this area on behalf of the project and it was decided that these would be migrated to the 4E standby power annex. The APP standby project has collaborated closely with the Annex in the past and currently the Annex counts 4 APP partners among its membership. The migration of this work brings the APP standby project to an end.

The final reports and presentations of the APP Task Forces are available on the website: <http://www.asiapacificpartnership.org/english/default.aspx>. The APP website will be maintained, providing access to the information and outcomes achieved by the partnership.



ASIA-PACIFIC PARTNERSHIP
BUILDING AND APPLIANCE TASKFORCE

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Latest News from the Lot 26 Study

The Lot 26 team has just published their Final Report, covering 8 separate tasks, bringing a conclusion to the EuP preparatory study on networked standby DG ENER Lot 26. The task 8 report, the last in the series, was the subject of a public consultation with stakeholders held in Brussels during February. Comments and feedback from this process have been incorporated into the final report. The study has recommended a policy solution for addressing networked standby energy consumption. The report along with all the study documentation is available on the project website <http://www.ecostandby.org>.

Key Recommendations

The key premise of the study is that a horizontal approach should be used to tackle network standby, covering both power management and minimum energy efficiency requirements. The report acknowledges that while the 'one size fits all' approach is seen as

problematic, it is necessary to ensure a broad coverage of power management, automatic power down routines and power down targets

The key to the proposed approach has been the development of three categories of network availability. These categories will be expressed as resume time, which is the length of time a product takes to begin activity once a signal has been received. The study proposed the following:

- High Network Availability (HiNA): < 1 second
- Medium Network Availability (MeNA): response time <10 seconds
- Low Network Availability (LoNA): Response time of >10 seconds

With these resume time categories established, the report goes onto recommend a two tier implementation with differing power management and efficiency requirements for each of the three categories. Tier 1 would focus on establishing the power management

for networked products with a power down sequence which remains in networked standby rather than powering down to standby or off mode. It was suggested that this could be introduced from 2014. Tier 2, to be implemented from 2016, would enforce more challenging but not unrealistic requirements with many products already in the market achieving these levels. Importantly, rather than setting an absolute energy target, the required values are averages over a set period of time. By setting averages products can periodically use higher amounts of energy for short periods of time to allow connectivity to be maintained. This average is recorded as Wh/h (watt hours per hour). Table 1 and 2 summarise the proposed targets for the Tier 1 and Tier 2 recommendations.

Following the report, the NL Agency (Dutch Government Agency) has made an informal proposal to deal with network standby in the EU

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Table 1: Tier 1 (2014) power-down targets

| Tier 1 (2014) | Scope | Resume time | Power Down Target | Default Delay Time |
|---------------|----------------|----------------|-------------------|--------------------|
| Mandatory | HiNA | < 1 second | 12 Wh/h | 20 Min. |
| Mandatory | MeNA | 15 seconds | 6 Wh/h | 20 Min. |
| Mandatory | LoNA (Phase 1) | No requirement | <idle | 20 Min. |
| Mandatory | LoNA (Phase 2) | No requirement | 3 Wh/h | 20 Min. |

Source: Lot 26EuP Preparatory Studies, Final Task 8 Report at : <http://www.ecostandby.org>

Table 2: Tier 2 (2016) power-down targets

| Tier 2 (2016) | Scope | Resume Time | Power Down Target | Default Delay Time |
|---------------|----------------|----------------|-------------------|--------------------|
| Mandatory | HiNA | < 1 second | 8 Wh/h | 10 Min. |
| Mandatory | MeNA | 10 seconds | 4 Wh/h | 10 Min. |
| Mandatory | LoNA (Phase 1) | No requirement | < idle | 10 Min. |
| Mandatory | LoNA (Phase 2) | No requirement | 2 Wh/h | 10 Min. |

Source: Lot 26EuP Preparatory Studies, Final Task 8 Report at : <http://www.ecostandby.org>

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by amending the current standby legislation (EC/1275/2008). The proposal is based on the results of the Lot 26 Study, especially the categorisation of the network connections by three levels of network availability. The proposal includes not specifying a default delay time, rather requiring the shortest possible period appropriate for the intended use. The proposal also requires products to be manually switched to network standby giving consumers the option to disable network standby. Table 2 below

Table 2: Tier 1& 2 power-down targets (NL Agency)

| Networked standby condition | Tier 1 (1-Jan-2014) | Tier 2 (1-Jan-2016) |
|-----------------------------|---------------------|---------------------|
| HiNA | 12 W | 8 W |
| MeNA | 8 W | 4 W |
| LoNA | 4 W | 2 W |

presents the levels proposed for the amendment.

Further stakeholder workshops on these proposals may be held in July 2011 with a possibility it could become an amendment to current EC Standby regulation in 2012. These

are the first network standby power policy proposals to put forward actual regulatory levels and while there has been some criticism that they do not provide a comprehensive solution to the network standby problem, they do represent a significant first step.

4E Standby Power Annex – Outcomes from Zurich

The fourth meeting of the 4E Standby Power Annex was held in May in Zurich, Switzerland. The meeting brought together 22 Annex members and observers from around the world. Members participated in a lively and informative discussion focusing on what the annex has achieved to date and what future directions the annex should take. It was apparent that the energy wasted by network connected products is of major interest and one that needs to quickly find a policy solution. There are currently nine projects due for completion by the end of June that will inform members on possible future opportunities. The annex has committed to setting firm goals for the future by the end of the year once the full implications of the current project outcomes are clearly understood.

Members also heard from the IEA energy efficiency unit about plans for a network standby project to complement the work of the annex. The 2 year project aims to

communicate the growing importance of network standby to decision-makers via publications and an international conference. Members were supportive of the project and agreed to work with the EEU team, sharing the Annex's work on network standby.

Additionally, annex members reflected on the success of co-branding and outreach with other organisations. In the past this has primarily been with the APP project, however members were excited by the prospect of collaborating with other groups such as governments or other organisations that can offer expertise and in-kind support for the existing and future annex works programs. SEAD (Super-efficient equipment and appliances deployment) has identified network standby as a key international project and as such there are likely to be good synergies between this group and the annex.

4E Membership Grows

The standby power annex was excited to start the New Year by welcoming 3 new members Austria, Denmark and Sweden who joined the annex for 2011, adding valuable experience and expertise to the group. The new memberships provide a wonderful start to a year that will be critical in determining the future directions of the annex and provide great opportunities to consolidate previous efforts.

AUSTRIA

DENMARK

SWEDEN

2011 Australian Standby Store Survey

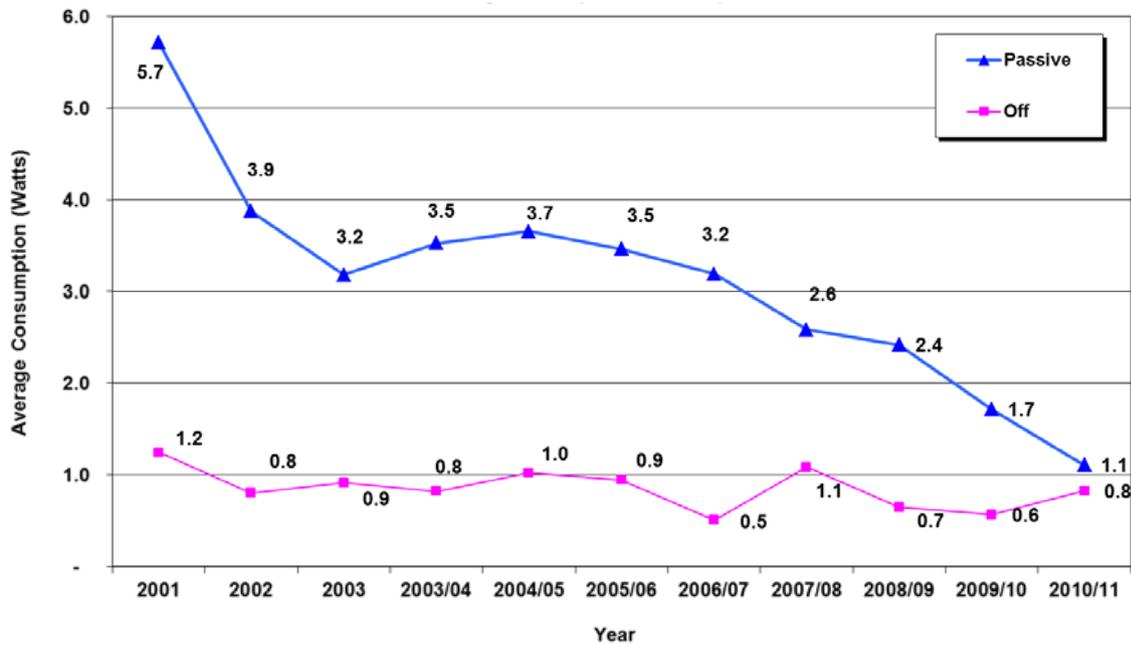
The 11th Australian store survey has just been completed. The survey has been conducted in Australia since 2000 resulting in the measurement of more than 8600 products! The 2010/11 survey measured over 470 individual units from 29 product types in four product categories; Core Basket, Home Entertainment, Computer products and Small Appliances. This year's survey discovered that average passive

standby across all products has continued the trend of decreasing consumption with the average now 1.1watts (See Figure 1). However the majority of product types still have at least a quarter of models consuming more than 1 watt with some consuming more than 8 watts in passive standby.

The good news is there were 7 product types that had 100% of units

measuring less than 1 watt in passive standby or off mode. However this is contrasted by the 6 products types - DVD recorders, microwave ovens, portable DVD players, CRT televisions, hard disk recorders and desktop computers - with 60% or more of models recording consumption greater than 1 watt.

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Standby Power Website

Have you visited the 4E Standby Power Annex website?

The website provides a valuable source of information for policy makers and technical experts interested in standby power issues. The news feed keeps you updated with the latest standby power events and publications from around the globe. The site also offers a compilation of standby power studies and evaluations and provides links to important relevant data sources and reports. Of course the site also includes all the information regarding the Annex and its work.

<http://standby.iea-4e.org/>

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Overall the results give a positive view of decreasing passive standby. However on a product by product basis the story is varied with some products showing little change over the ten year measurement period. The key findings listed below are detailed in the report (soon to be published at www.energyrating.gov.au). Detailed results for each individual product type can also be found in the report.

Summary of Key Findings

- Passive standby has continued to decrease over time with the average across all appliances now at 11W (see Figure 1).
- For the vast majority of product types, at least 25% of models currently on sale would not meet proposed standby regulation criterion.
- Ten products types had 60% or more of models not meeting proposed regulations (Microwave ovens, CRT televisions, DVD recorders, hard disk recorders, portable DVD players, subwoofers, portable stereos, Washing machines, computer speakers and desktop computers).
- Four product types achieved 100% of models meeting the consumption levels required by proposed standby regulations (external power supplies, Laser Printers, home theatre systems and set top boxes).
- The product types with the highest passive standby readings (> 8W) were hard disk recorders, subwoofers and integrated stereos.
- Regulation should consider if products in market decline such as CRT televisions and VCRs will receive an exemption. Manufacturers are unlikely to invest in design improvement for such products.

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- > **4E comes down under – meeting outcomes**
- > **What's happening with regulation? Global Update**
- > **SEAD embrace network standby**
- > **Australian Standby Power Survey in homes**

Send us an email at energyrating@climatechange.gov.au if you have suggestions for topics for the next newsletter (October 2011).



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