

# Standby Power Annex Overview



The Standby Power Annex provides government policy makers with information, reports and tools that support the development of successful policies to combat the energy wasted by products in standby power modes. International experts estimate that standby power accounts for in excess of 1% of global electricity consumption, as much as 10% of residential electricity use with at least 50% of that energy wasted<sup>1</sup>.

The main aim of the Annex is to *“monitor and report the extent of, and changes in, energy consumption by electrical appliances in low-power modes (standby power);... and to support the development, alignment and implementation of policies that address the issues of energy wasted in low power modes for both standalone and networked products”*. The four key areas covered by the annex include:

- Network Standby
- Horizontal Policy Frame Work
- Data Collection
- Standby Power Policy Evaluation

## Who's Involved

The Standby Power Annex membership is made up of delegates from 10 national governments: Australia, Austria, Canada, Denmark; the Netherlands, the Republic of Korea, Sweden, Switzerland, the United Kingdom and the United States of America.

*\*Member listing March 2012*



## More Information

All publicly available documents produced by the Annex can be accessed on the Annex website at <http://standby.iea-4e.org>.

The Annex also produces a Newsletter providing regularly updates on international standby issues and events. Free subscription is available via the website which also provides links and news of other standby projects and international activities.

## Summary of Major Achievements of the Standby Annex 2009-2012

- **Alignment of data collection methodology** – provides policy makers with baseline information and a measurement tool which can assist in the design, monitoring and evaluation of different policy approaches.
- **Horizontal Policy Framework** – provides policy makers with a framework to develop a successful horizontal standby power policy.
- **Evaluation Framework** – provides an instrument to design an evaluation approach which will not only be more transparent but enable different policy approaches to be compared and contrasted.
- **Network Standby Research** – provides a comprehensive overview of what network standby is, the size of the problem, opportunities for reducing wasted energy, and steps required to move towards developing policy options to tackle the issue.
- **Standby Power Benchmarking Study** – describing the trends in standby power with a particular focus on TVs.

### Data Collection

The Annex is involved in developing field testing so that global policy decisions can be based on measured, historical-trend data. The Annex produced a Standby Power Benchmarking study comparing data trends in countries where differing policies apply. The Annex intends to continue to gather data and expand measurement to networked products. The Annex will be encouraging governments to measure network standby using consistent, comparable means facilitating policy benchmarking and evaluation.

### Horizontal Policy Framework

The Annex provides policy makers with a comprehensive guide on deploying a horizontal policy approach to addressing Standby Power rather than seeking to maintain more traditional vertical, sectoral approaches. The Annex is also investigating the combinations of functions present in appliances, when they are required and what power is needed to engage them without waste; all with a view to encouraging optimal policy intervention by individual governments.

### Standby Policy Evaluation

The Annex has produced 2 reports to assist policy makers with the evaluation of standby power policies. These include recommendations on how to establish a baseline prior to policies commencing, how to deal with the complexities of collecting accurate data and using the data to assess policy. These practical guides “*Evaluation of Policies to Reduce Standby Power and Development of a Standard Methodology*” and “*Estimating Stock Average Low Power Mode Attributes*” are available on the Annex website.

#### Guiding Principles for Energy Efficiency in Networked Products

##### NETWORK CONNECTED DEVICES – INITIAL HARDWARE OBJECTIVES

- Digital network technologies should actively support power management and should follow standard (international) energy management principles and designs.
- Connection to a network should not impede a device from implementing its own power management activities.
- Networked devices should not impede power management activities in other devices connected to the network.
- Networks should be designed such that legacy or incompatible devices do not prevent other equipment on the network from effective power management activities.
- Network connections should have the ability to modulate their own energy use in response to the amount of the service (level of function) required.

##### NETWORK CONNECTED DEVICES – INITIAL EE POLICY OBJECTIVES

- Governments should ensure that electronic devices enter low-power modes automatically after a reasonable period when not being used (power management).
- Governments should consider limits on energy consumption in low-power modes for networked products and develop technically feasible options.
- Governments should ensure that network-connected electronic devices minimise total energy consumption, with a priority placed on the establishment of industry-wide protocols for power management.
- Energy efficiency specifications should require specific particular hardware or software technologies only after careful consideration. Open source and non proprietary technologies are generally preferred.
- Requirements for networked products need to be generic and performance based.

### Network Standby

All governments are concerned about the energy wasted by networked connected products with differing policy approaches now being implemented in regions around the world. The Annex has published expert reports to explain the issues and a global estimate of the energy wasted by network-connected products. The Annex is concentrating on a policy framework specifically for networked-connected products to showcase these differing approaches. As part of this process, the Annex is encouraging all governments to accept the IEA’s “*Guiding Principles for Energy Efficiency in Networked Products*”, available from the Annex website.

<sup>1</sup>EES 2010 *Standby Power and Low Energy Networks: Issues and Directions*, Report for APP and IEA 4E Standby Annex.

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