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Standby and Off-Mode Energy Losses In New Appliances Measured in Shops

SELINA

SELINA characterized the European market in terms of standby and off consumption in new electrical and electronic household and office equipment, being sold in shops, by developing an appliance specific measuring methodology. A large scale monitoring of new equipment has allowed characterizing low power modes “Iopomos”, of the equipment being sold in a large sample of European Countries. This allowed creating an equipment database with the market trends, which is a major tool for policy makers to define future policies and regulations. The purpose of these standby measurements on a common set of products was to allow national and international comparison of these like products across different countries and regions. Such measurement heightened the awareness of stakeholders of the magnitude of standby power and will provide a focal point to highlight differences across regions. The main objective of this project was to identify effective market transformation policies initiatives targeted at all the key stakeholders involved in the manufacture, distribution, sales and operation of appliances with standby and off-mode losses.



Results

- About 6318 equipments have been measured divided in different categories: appliances, entertainment, ICT and miscellaneous. All measurements are available on the project website, at the online SELINA Database especially developed in the scope of the project. 18.5% of the measured products measured presented input power values higher than the 2010 EC 1275/2008 regulation threshold in off-mode. For standby this value reaches 31%. For the 2013 threshold, the values increase to 41.5% and 66.4%.
- Based on the measurements a user friendly Standby Calculator Tool was developed and can be accessed on the project website. It can be used to calculate the consumed energy, the annual cost and the equivalent CO2 emissions. In order to compare the results in an easy way, a diagram that shows the energy consumption of the different models is presented. Furthermore, the values for the most efficient device are also showed, in order to have an additional comparison.
- About 390 questionnaires collected during the awareness survey of retailers. The results of the retailer’s survey showed that, despite of retailer’s consciousness of the products energy consumption and energy labels, other types of arguments like the appliance price or functionalities are more frequently used to sell a product.
- A Consumer Guideline brochure was produced and can be downloaded at the project website. It was translated in all partners’ national languages. All the major outputs of the project can be seen in the book with about 110 pages that is available for download at the project website.
- Effective market transformation policies and initiatives were identified in Europe and in non-EU countries and Policy recommendations to EU were identified. The concept of a warning label on products with standby consumption is supported. This appears to be a feasible approach for

some products and modes. However, that warning label should not be necessary where there are mandatory requirements such as Minimum Energy Performance Standards (MEPS) that cover relevant products and modes.

Lesson learned

- Special care is required when promoting low standby products (without consideration of other attributes) to ensure that there are no perverse effects such as the inadvertent promotion of products with low active mode efficiency and high energy consumption. It is desirable to follow a vertical approach to standby, where low power modes are combined with active modes to give total energy consumption. It is preferable for products where the total energy consumption is significant.

Partners and coordinator

ISR-University of Coimbra [1]	Portugal
e-ster bvba [2]	Belgium
SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s. [3]	Czech Republic
IT Energy ApS [4]	Denmark
Association pour la Recherche et le Développement des Méthodes et Processus Industriels [5]	France
Fraunhofer Gesellschaft zur Förderung der angewandten Forschung e.V. [6]	Germany
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Ekodoma [9]	Latvia
Romanian Agency for Energy Conservation [10]	Romania
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Budget

Overall budget: 1.150.417,00 € (EU contribution: 75,00 %)

Key documents

- [SELINA Book](#) [13]
PDF 5.59 MB 
- [SELINA Consumer Guide](#) [14]
PDF 1.28 MB 
- [SELINA Summary Slides](#) [15]
PDF 3.87 MB 

In brief

Sector: Equipment and products

Duration: 01/10/2008 to 30/09/2010

Contract number: IEE/07/563/SI2.499206

Website: <http://www.selina-project.eu>

Tags:

appliances

Related projects

- [\[PROMOTION 3E\]](#) [16] Promotion of energy efficient appliances

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